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Enhancing Environmental Performance through Green HRM and Green Innovation: Examining the Mediating Role of Green Creativity and Moderating Role of Green Shared Vision

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Abstract

Organizations encourage green creativity among workers to mitigate pollution and achieve sustainable growth. Green human resource management (GHRM) activities have a well-documented role in influencing workers' green attitudes and environmental efficiency. The aim of this research is to see how Green HRM activities affect employee green innovation. Furthermore, the mediating influence of green creativity between the association of GHRM and green innovation is explored. Moderation of green shared vision between the association of green innovation and environmental performance is also investigated. In this analysis, we used SPSS and AMOS software to run structural equation modeling to test study hypotheses. For hypothesis testing, data was obtained from 437 employees employed in a variety of industries of Pakistan. Results show that GHRM has a positive and significant influence on green creativity and green innovation. Moreover, green creativity significantly mediates the association between GHRM and green innovation. It means that GHRM can not only directly affect green innovation, but also indirectly influence it via green creativity. Moreover, this study also explores that the significant positive association between green innovation and environmental performance is moderated by green shared

vision. This study adds the indicator of green creativity as one of the key antecedents of green innovation and environmental performance to the previous literature. Furthermore, this study contributes to the prior literature by using green shared vision as a moderator between green innovation and environmental performance. Overall, findings of this study support all direct and indirect hypotheses and have several theoretical and practical implications for top management and policymakers to ensure employee commitment to GHRM practices and green innovation implementation in order to achieve high environmental performance.

Keywords: green human resource management, green creativity, green innovation, green shared vision, environmental performance.

1. Introduction

In recent decades, countries have started acknowledging serious threat to natural environment. Environmental excellence and its effect on individuals' life became increasingly important for academia and global policy makers. Legislation is being advanced to treat the global environment, as a result global understanding on environment has been sharply promoted (Saeed et al., 2019). In addition to regulatory standards, good environmental policies are crucial in building the image and competitive advantage of an enterprise (Tang et al., 2018). While many commercial organizations compromise this terrible situation by using power and electronic pollution, doubling atmospheric carbon emissions. Consequently, there is an immense pressure from stakeholders to formulate strategies that should support the sustainable behaviors, and human resources teams aim to bring sustainability and pro-environmentalism in almost all mechanisms (Saeed et al., 2019). It encourages businesses to focus on intangible possessions to solve the complexities of environmental protection matters and react in a way that encompasses a variety of pressure from stakeholders. Environmental management programs in organizations rely on the development and sustainability of internal competencies and skills. According to Leroy et al. (2018) human resource management (HRM) and leadership play an important role in the development of a firm's internal competences and abilities.

Sustainable development is suggested through a framework for green human resources management (Green HRM). Green HRM has gained a lot of academic attention in recent years (Anwar et al., 2020; Das et al., 2019; Paulet et al., 2021; Pham et al., 2020). Green HRM promotes environmental sustainability through alignment of HRM activities, such as performance management (PM), training, recruitment, and compensation with the objective of company. Thus, green HRM activities are essential for ensuring employees participation in environmentally sustainable working practices. Green HRM refers to programs and procedures that encourage workers to be environmentally conscious and to use corporate resources in a sustainable manner (Opatha & Arulrajah, 2014). According to Saeed et al. (2019) green HRM encourages sustainable use of organizational capital via HRM strategies, concepts, and processes, as well as preventing any environmental problems within the organization, thus promoting environmental sustainability. Environmental performance (EP) was analyzed by Ojo and Raman (2019) but they did not consider the worker's perception on the underlying green HRM activities. As a result, more

recent research has called for analysis of the specific green HRM activates related to green creativity and environmental efficiency (Ren et al., 2018). According to Chen and Chang (2013) green creativity (GC) is described as "the development of new ideas about green products, green services, green processes or green practices that are judged to be original, novel and useful". It is generally held that creativity is essential for organizational innovation and overcoming challenges. Environmental sustainability in the green era can not only assist businesses in overcoming environmental glitches, but also encourages them to engage in green innovation. Firms that take the lead in GC or green invention can gain the forerunner advantage, enabling them to gain competitive benefits while also reducing production waste and pollution.

Organizations rely heavily on their workers' green innovative practices to promote sustainable environmental development (Tang et al., 2018). Furthermore, corporate environment and underlying intentions of behavior have a significant influence on employee conduct (Norton et al., 2017). Therefore, the effect of GHRM on green creativity of employees in resource-based companies, along with the impact of green creativity on green innovation is investigated in this study. A shared vision suggests a systematic strategic path that guides participants' actions in the right direction (Larwood et al., 1995). This study contributes to the literature by introducing a novel idea, green shared vision, as a moderator which is described as "a clear and common strategic direction of collective environmental goals and aspirations that has been internalized by members of an organization". Study suggests that green shared vision (GSV) can trigger the relationship between green innovation and environmental performance. Organizations should improve green shared vision to increase green creativity that ultimately increases the green innovation practices of an organization. This research helps to develop the green HRM practices in the context of overwhelming pressure from stakeholders to care for both the constructed and physical environment. To begin with, our research advances both the RBV and AMO theoretical perspectives by demonstrating how green HRM practices and green creativity develop internal skills to work on green innovation for long-term EP. In addition, this research suggests that green HRM has an impact on green innovation, both directly and indirectly through green creativity. Furthermore, our research provides empirical evidence for why and how GHRM practices are essential for GI and EP.

The following steps were taken to investigate the relationships of the aforementioned elements. First, we compiled a review of the relevant literature on GHRM, green creativity, green innovation, and environmental performance. After that, we performed empirical analysis to confirm the relationships between these key variables. According to the research framework, six hypotheses were analyzed by applying sutural equation modelling (SEM). Finally, after considering the research findings and implications, we arrived at conclusions.

2. Literature Review and Theoretical Framework

2.1 Green HRM and Green Creativity

Human resource (HR) strategies have effect on both organizational and environmental success by influencing employee perceptions and behaviors (Gilal et al., 2019; Kim et al.,

2019). Corporations all around the world are increasingly reforming their policies and implementing more environment friendly corporate practices. HRM, as one of the critical functional areas of the organization, must also change its conduct by implementing more environmental friendly, pro-environmental, and green practices (Dumont et al., 2017). Considering pro-environmental attitudes of applicants at the time of recruiting, providing incentives for green behaviors through performance appraisal, plus training and advancement on sustainable corporate strategies are only a few of the tasks that fall under the umbrella of Green HRM. Wehrmeyer and Parker (1996) better described the significance of GHRM's relevancy for sustainable growth by asserting that "if a company is to adopt and environmentally aware approach to its activities, the employees are the key to its success or failure". This is because the emphasis on sustainability in industries has been moved from macro to a micro level of enterprises, thus underlining the human facet of environmental strategy and its consequences in terms of different outcomes (Teixeira et al., 2012).

According to social identity theory (SIT) presented by Ashforth and Mael (1989), people are likely to identify themselves into different classes, associations and affiliations, etc. in order to establish a positive identification. This grouping of oneself is reliant on different distinct features, including physical appearance, intellectual capability, psychological characteristics, etc. The most critical designation that workers have in different organizations is perhaps membership. According to Benkhoff (1997), social identity is an essential aspect of one's self-concept. Hence, workers tend to affiliate with companies that have a strong reputation, social status, and a positive profile, as this would improve their self-concept, personality, and self-worth. In view of this, businesses investing in their activities to address/promote social and environmental issues, such as green HRM, have a reputation that is meaningful both in the eyes of their staff and other stakeholders. As a result, this concept is the best fit to understand the underlying process by which green HRM can result in significant outcomes like green creativity (Song & Yu, 2018).

According to Amabile (1988) green creativity is the invention of some novel, original and useful green goods, green facilities, green processes and green practices. Different authors stressed the value of green creativity for organizational economic growth and competitiveness. We conclude that Green HRM practicing, including training and growth for environmental issues, rewarding green working habits, and even assessing an applicant at recruiting and selection, can help to shape attitudes and actions of workers towards greener practices. Such activities often give the organization a positive image. As SIT proposes, workers would be identified with such a responsible organization to improve their personality and dignity. Ownership of workers will grow, and they will find creative solutions to the challenges which are environmentally sound and thereby enhance green creativity. They would likely associate those organizations with those who are more responsible and accountable, so proposing unconventional ideas would not affect their career. As a result, it is hypothesized that GHRM activities would boost green creativity, implying that:

- **H_1:** Green HRM practices have a significant and positive impact on green creativity.

2.2 Green Creativity and Green Innovation

Creativity is the most important consideration for developing innovative solutions (Chen & Chang, 2013; Halbesleben et al., 2003). Creativity is interpreted as new and useful concepts within an organization; innovation is about implementing revolutionary ideas to improve corporate processes, practices or goods in an organization. Green innovation is a relatively recent concept coined by Chen and Chang (2013) in the light of common concerns about corporate activities that is responsible. According to Anderson et al. (2014) creativity focusing on concept creation and innovation emphasizing the execution of ideas; accordingly creativity is also perceived as the very first phase of corporate innovation. Chen and Chang (2013) introduced the idea of GC based on the theory of institution's creativity.

When an enterprise introduces innovative and valuable green concepts, it promotes a mechanism that can accelerate green creativity. Consumer requirements for green goods and performances may compel a company to create notions for green products and procedures that satisfy those demands. An organization tries to overcome practical problems and strengthens the potential for green innovation to address these requirements (Tseng et al., 2013). Furthermore, as per the stakeholder theory environmental regulations are more closely related to the interests of different concerned parties. Nowadays, firms are experiencing more strict environmental oversight by government (Eiadat et al., 2008). Due to the stakeholders' demand to tackle environmental challenges, administrators have started to adopt a GI approach that will generate unique and valuable concepts for green products, green utilities, green processes, and environmental policies. When a company acquired innovative green concepts for improved processes, practices, it expands GI. Hence, in light of the above literature we can hypothesize that:

- **H_2:** Green creativity has a significant and positive impact on green innovation.

2.3 Green HRM and Green Innovation

Green innovation means the creation of environmental friendly goods and processes by means of industrial activities such as greener raw materials, less materials used for designing products based on environmental friendly design concepts and trying to reduce consumption, minimize use of water, energy and other raw materials (Gunasekaran & Spalanzani, 2012). Green HRM has the ability to change employee perceptions and attitudes by making them more environmentally conscious, resulting in the implementation and delivery of corporate sustainability. Several studies have revealed that companies with green innovativeness (Albort-Morant et al., 2018) are more competitive and perform better overall than their competitors because they use their green tools and competences to respond well and appropriately to customer demands (Singh et al., 2020) and contribute intangible values and assets to the enterprise.

Previous literature indicates that HRM practices have significant and positive impact on product innovation. The creative orientation of HRM activities with an emphasis on cultivating a sense of dedication rather than compliance has a direct effect on firm's

innovation (Verburg et al., 2007). Simultaneously, in another study on HRM innovation Seeck and Diehl (2017) observes that HRM does not significantly influence managerial and procedural innovation particularly in comparison to product and technological innovation. As a result, preceding research on the association between HRM and organizational creativity has provided conflicting results. Green HRM activities can be institutionalized for the purpose of recruiting, promoting, and creating opportunities for eco human capital to maximize their potentialities for green process and product creation through organizations that respect and leverage the potential of their human talent. Hence, we proposed that.

- **H_3:** Green HRM has a significant and positive impact on green innovation.

For instance, paying workers who contribute to the organization's green policy in a specific way, employing people based on their environmental awareness, concern, views, conscience, and expertise, and so on.

2.3 Mediating Role of Green Creativity

Green HRM activities like recruitment, training, performance, and staff engagement put some emphasis on workers by affecting their behaviors, subjective standards as well as observed behavioral management. For instance, paying workers who contribute to the organization's green policy in a specific way, hiring personnel based on their environmental awareness, concern, opinions, mindfulness, and knowledge, conduct extensive training to increase inducement to involve in pro-environmental activities, and formulating strategy to enhance environmental commitment and participation. Green HRM activities have a positive influence on environment that is why workers seem excited and encouraged to adopt green behaviors. When an organization gives importance to green behavior, it will stimulate employees to participate in environmental creative projects. In return for the organization's assistance, employees will also demonstrate strong behavioral intentions, generate green ideas and green process or products (Naz et al., 2021). Therefore, Green HRM influences green behavioral intention of employees, which in turn influences green creativity.

On the other hand, one of the most significant types of environmental policies is a green innovation. Green innovation entails improvements in procurement processes in relation to corporate activities, such as reducing resource use, averting pollution, and implementing environmental protection systems. In the process of cutting costs, companies should use their resources to raise awareness of green product innovation potential to stimulate green corporate creativity. As per the organizational creativity theory, creativity is the result of new and valuable concepts. Enterprises need to build corporate creativity that is the key factor for innovative ideas. An organization needs to make an effective use of its technical and human capacities and diverse resources to achieve its green innovation objective. The prime objective of this research is to analyses the influence of GHRM on green innovation through the mediator green creativity. So, considering the literature review we can posit that green creativity for improved processes, practices or products expands green innovation.

- **H_4:** Green creativity mediates the association among GHRM and green innovation.

2.4 Green Innovation and Environmental Performance

Environmental performance (EP) refers to corporate activities that go beyond basic rules and regulations to achieve and surpass societal standards in relation to the natural environment (Chen et al., 2015). It takes into account the environmental consequences of corporate operations, products, and resource utilization in a way that is constant with legitimate environmental standards. Prior researches indicate that EP is influenced by the quality of environmentally sustainable goods, green procedure and product revolution, and the integration of environmental sustainability concerns into business strategies and product development (Amir et al., 2020; Chen et al., 2015; Dubey et al., 2015). Green innovation is connected to a strong environmental management program that enhances environmental efficiency with green innovation (Adegbile et al., 2017; Chen et al., 2006; Singh et al., 2020). Weng et al. (2015) suggested that green product and process development not only eliminates the company's detrimental effect on the environment, but also increases financial and social performance by eliminating waste & costs that save time money and resources.

Previous literature shows that, green innovation should not be seen as a company's response to stakeholder pressures through a progressive corporate intentions and activities to improve environmental sustainability and to achieve a competitive edge (de Burgos-Jiménez et al., 2013; Kratzer et al., 2017). Based on the literature we anticipate that green development and product revolution are important operational capabilities that a company can use to improve its environmental efficiency and gain confidence from significant stakeholders. According to Barney (1991), the association among human capital and firm performance is not recent, and it can be found in existing HRM literature. R*esource-based view* (RBV) theory of the firm indicates that competitive advantage and performance depends upon how firms leverage their strategic resources that are valuable, rare and difficult to imitate by the rivals in the markets. However as per the *ability-motivation-opportunity* (AMO) theory of Appelbaum et al. (2000), "employees' abilities, motivations, and opportunities contribute to organizational performance; this is an integrating perspective illustrating why and how leaders and strategic HRM practices promote firm performance". By using the RBV theory and AMO theory, we anticipate that green innovation has a direct influence on EP. Thus, we predict that.

- **H_5:** Green innovation has a significant and positive impact on environmental performance.

2.5 Moderating Role of Green Shared Vision

A shared vision can articulate an organization's collective goals and standards that guide its members to the future of the organization (Larwood et al., 1995). In addition, a collective vision provides a collective strategic approach that can expose converging objectives. A shared vision of green management has become extremely valuable in promoting green initiatives. The term green shared vision is proposed in this paper, and it is described by Larwood et al. (1995) as "clear and common strategic direction of collective environmental goals and aspirations that has been internalized by members of an

organization". Organizational consideration with respect to sustainability management is more crucial in the environmental era to foster green concepts within an organization (Naz et al., 2021). A shared vision uses future business growth potential as a framework for impracticable policies. A shared vision can create a specific organizational objective and encourage the essential organizational changes to promote green innovation.

Previous studies suggest that a shared vision is a fundamental premise for awareness, as it gives instructions on what to think and reform. A shared vision can allow personnel to see their job in a wider and more conscious environment (Vogus & Sutcliffe, 2012). Top managers can express a shared vision, explain how they meet their objectives, demonstrate trust and optimism, and positively encourage their employee's standards and beliefs. A shared vision could also be used to ensure that the members feel they are able to successfully solve the existing challenges and influence their actions to work effectively. Shared vision is the framework for action within the organization to ensure convergence to long-term objectives. If corporations are directed by a shared vision, workers can see their efforts valuable and thus feel more comfortable to communicate their opinions about possible improvements in the environment (Alt et al., 2015). A shared vision capability may help to clarify goals by removing ambiguities and competing interests, adding context to new tasks, and organizing the attention of departments and teams. Thus, in light of the literature review we can posit that green shared vision positively linked with environmental performance. Following the discussion above, we anticipate that a GSV not only positively influence environmental performance but also moderate the association between green innovation and EP. Thus, we predict that:

- **H_6:** Green shared vision moderates the association between green innovation and environmental performance.

Figure 1 (below) shows the research framework of the study that is designed based on the theories and previously discussed hypotheses that explains the relationship among variables. Hypothetical paths explain the relationship between variables. Green HRM and green innovation are the independent variables of the study while green creativity is the mediator between GHRM and GI. Green shared vision is introduced as a moderator among green innovation and environmental performance.

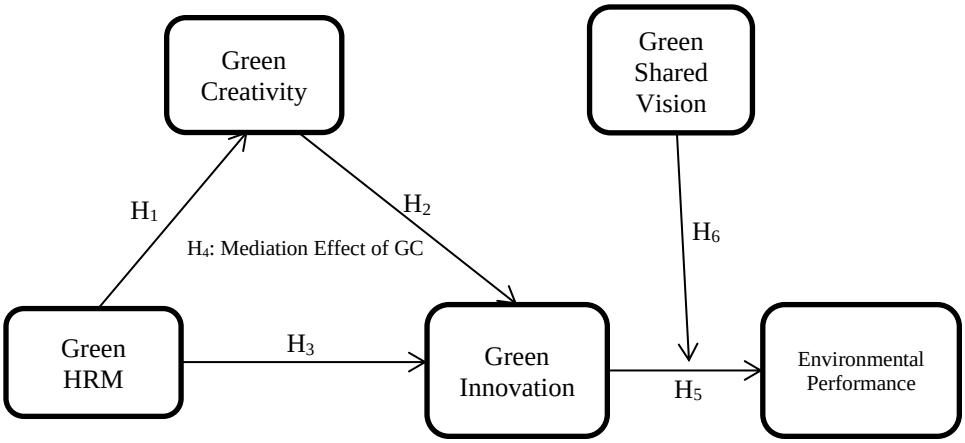

Figure 1: Research Model

3. Methodology

In this study data was obtained from employees and managers working in different Pakistani organizations. Our goal was to obtain data by reducing the sampling to ISO 14001-certified organizations that are aware of green HRM activities. We were capable to obtain the online consents of HR department of firms with the commitment to keep respondents anonymous. Some firms refused to support because they found Green HRM related details to be a trade secret that could not be communicated with others. A questionnaire-based research instrument was used to administer 650 questionnaires from employees and managers through online means, 437 of which were returned and usable. Participants were given complete assurance in the confidentiality of their response due to ethical concerns.

3.1 Demographic Profile

We targeted key participants in the organizational positions who are closely involved in the application of environmental policies and initiatives to improve overall environmental efficiency. The survey included 437 employees and managers, 196 of whom were female and 241 of whom were male, who worked in a number of private and public sector organizations. For people aged 25 t0 35 years, mean age of participants is 43.2%. 31.1% were between the age of less than 25 years. Only 3.7% people were belonging to the age level of more than 45 years. Undergraduate participants account for 11.2%, while graduates represent 60.2% and master's degrees and above account for 28.6%. Participants in lower-level management positions account for 13%, middle level 57%, and upper level 30% in terms of work position. When it comes to work experience, 43% of workers have employed for 3 to 6 years, while 31.6% have worked for 6–8 years, 16.2% have the experience of less than 2 years.

Table 1: Demographical Profile

		Frequency	Percent
Gender	Male	241	55.1
	Female	196	44.9
	Total	437	100.0
Age	Less Than 25 Year	136	31.1
	25 to 35 Years	189	43.2
	35 to 45 Years	96	22.0
	More Than 45 Years	16	3.7
	Total	437	100.0
Experience	Less than 2 Year	71	16.2
	3 to 6 Year	188	43.0
	6 to 8 Year	138	31.6
	More than 8 Year	40	9.2
	Total	437	100.0
Designation	Low	57	13.0
	Middle	249	57.0
	Top	131	30.0
	Total	437	100.0
Education	Below bachelor	49	11.2
	bachelor	263	60.2
	Master and above	125	28.6
	Total	437	100.0

3.2 Measurement

Five measurement perspectives were used in this study such as GHRM, green creativity, green innovation, green shared vision, and environmental performance. The five-point Likert scale, which ranges from 1 strongly disagree to 5 strongly agree, allows participants to check the appropriate checkboxes. For *Green HRM* 6-item scale was used from green HRM activities developed by Dumont et al. (2017). On a five-point scale, respondents graded their view of their organization's adoption of GHRM activities. The Cronbach alpha value for this scale was 0.916. The six-item scale established by Chen and Chang (2013) were used to assess employees' *green creativity*. This scale had a Cronbach's alpha of 0.893. For "environmental performance" five item scale was used from Melnyk et al. (2003) and Daily et al. (2007). The value of Cronbach alpha for this scale was 0.896. For the measurement of *"green innovation*" six item scale was used that was introduced by Chang (2011). The Cronbach alpha value for green innovation was 0.903. Four-item scale was used to measure the *"green shared vision"*. Measurement scale of green shared vision was presented by Jansen et al. (2008).

4. Empirical Results

Using the data of 437 respondents, we first check the model fit measurement in order to examine the suitability and validity.

4.1 Measurement Model

We performed a series of CFAs to test the discriminant and convergent validity of our sample constructs prior to performing the substantial analyses. The proposed five-factor model has a good fit with the data, as seen in Table 2, and it is substantially better than nested models. The measurement model was evaluated by determining its convergent and discriminant validity (Hair et al., 2006). For convergent validity, composite reliability must be greater than 0.70 to establish reliability of the data, average variance extracted (AVE) must be higher than 0.50. For discriminant validity, maximum shared variance (MSV) must be less than average variance explained. Cronbach alpha shows the coefficient reliability of the instruments used in this study. Cronbach alpha should be greater than 0.70 to meet the reliability of the data. According to Fornell and Larcker (1981), individual item loading for corresponding construct must be >0.50 to ≥0.70 (Niemand & Mai, 2018). Table 2 represents the results of reliability, convergent validity and factor loading values of all the scales used. All the scales used for our analysis meet the criteria (Fornell & Larcker, 1981) and all the constructs in the analysis are highly convergent in their validity. Table 2 shows that individual item loading values was in the rage of .634 to .913, Cronbach alpha was greater than 0.70, AVE was greater than 0.50 and MSV was less than AVE. As a result, we can see that all of the measurement instruments have both convergent and discriminant validity (Fornell & Larcker, 1981).

Table 2: Factor Loading, Reliability and Convergent validity

	Items	Loading	Cronbach Alpha	CR	AVE	MSV
Green HRM	GHRM1	.799	0.870	0.871	0.532	0.328
	GHRM2	.710				
	GHRM3	.681				
	GHRM4	.634				
	GHRM5	.685				
	GHRM6	.845				
Green Creativity	GC1	.830	0.931	0.934	0.703	0.328
	GC2	.712				
	GC3	.789				
	GC4	.890				
	GC5	.881				
	GC6	.913				
Green Innovation	GI1	.840	0.920	0.922	0.664	0.341
	GI2	.730				
	GI3	.751				
	GI4	.837				
	GI5	.843				
	GI6	.878				
Green Shared vision	GSV1	.834	0.909	0.909	0.715	0.341
	GSV2	.854				
	GSV3	.831				
	GSV4	.863				
Environmental Performance	EP1	.786	0.897	0.898	0.637	0.318
	EP2	.795				
	EP3	.812				
	EP4	.804				
	EP5	.793				

Table 3 represents the results of descriptive statistics, correlation among all the variables and discriminant validity. Mean values within a valid range of 1 to 5 indicate that data is normally distributed and there are no outliers in the data. Discriminant validity of the constructs was measured by comparing the correlation of all variables and the square root of the AVE of all constructs presented in table 3. As the square root of AVE is higher than the correlation among variables, thus results demonstrate strong discriminant validity.

Table 3: Descriptive Statistic and Discriminant Validity

Constructs	Range	Mean	SD	GSV	GHRM	GC	GI	EP
GSV	1-5	3.3238	0.922	**0.846**				
GHRM	1-5	3.0713	0.931	0.425	**0.729**			
GC	1-5	3.3066	0.982	0.427	0.573	**0.839**		
GI	1-5	3.4306	0.919	0.584	0.459	0.456	**0.815**	
EP	1-5	3.4828	0.964	0.419	0.473	0.564	0.506	**0.798**

Note: The square root of AVE of each latent construct that is compared with the correlation coefficients is represented by bold values in diagonal. Abbreviation: GSV, green shared vision; GHRM, green human resource management; GC, green creativity; GI, green innovation; EP, environmental performance.

Table 4: Model Fit Indices

Indicators	CMIN/DF	GFI	IFI	TLI	CFI	RMSEA	KMO
Ideal Values	≤ 3	≥ 0.90	≥ 0.90	≥ 0.90	≥ 0.90	≤ 0.08	0.6 – 1.0
Stated Values	1.649	0.918	0.975	0.972	0.975	0.039	0.942

Note: GFI, good fit index; IFI, incremental fit index; TLI, tucker levis index; CFI, comparative fit index; RMSEA, mean root error of approximation.

Table 4 represents the outcomes of model fitness indices. In this study CMIN/DF, GFI, IFI, TLI, CFI, RMSEA and KMO indices were used to test the compatibility of the five-factor model. CMIN/DF satisfies the compatibility criteria because it is less than 3. According to model fit criteria GFI, IFI, TLI and CFI must be ≥ 0.90 and RMSEA value must be below 0.08 (Hair et al., 2006; Xia & Yang, 2019). Results indicate that model is best fit and ready for further analysis.

Table 5: Structural Equation Modeling

Hypothesis	Hypothetical path	Estimate	S.E.	P-Value	Supported
H_1	GHRM → GC	.524	.043	.001***	Yes
H_2	GC → GI	.285	.056	.001***	Yes
H_3	GHRM → GI	.264	.059	.001***	Yes
H_4	GHRM → GC → GI	.149	.027	.01**	Yes
H_5	GI → EP	.453	.042	.001***	Yes
H_6	GI x GSV → EP	.222	.039	.001***	Yes

In order to test study hypotheses, we employed SEM by using AMOS v24, consequently, table 5 presents the results against the hypothesis. H_1 of our study indicated that GHRM positively influence green creativity and results demonstrated that this impact is 52 percent (β .524 and p .000). Thus, we accept this hypothesis. The impact of green creativity on

green innovation is 28 percent, which means that a 1-unit increment in GC will bring a .28 positive response in green innovation and this hypothesis also proved. H_3 of the study also accepted because of the impact of GHRM on GI 26 percent and significant. To improve the environmental performance, we consider the influence of GI on EP, and H_5 of the study related to it indicated that GI has a direct and significant effect on environmental performance by 45%, therefore we accept H_5. Below mentioned figure 2 presenting the results of structural equation modeling.

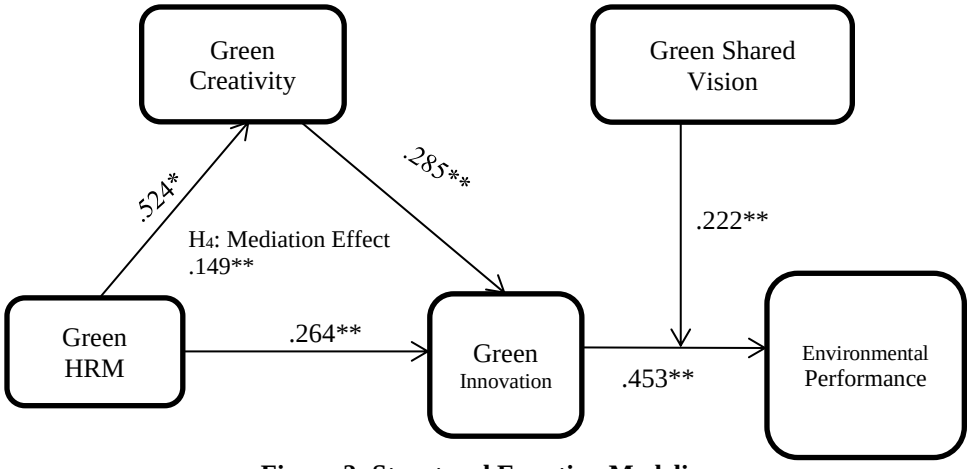

Figure 2: Structural Equation Modeling

4.2 Mediating Role of Green Creativity

Table 5 displays the results of structural equation model in which mediating role of green creativity on the association between GHRM, and GI was examined. Results demonstrated that our study has partial mediation among GHRM, GC, and GI. As H_4 indicated that indirect effect of GHRM on GI through GC is 14.9 percent (β .149 and p .010), so we are accepting H_4. It means that GHRM can not only directly affect green innovation, but also indirectly influence it via green creativity. We discovered that Green HRM not only promotes GC but also encourage green innovation and environmental performance. We revealed that GHRM, green creativity, and environmental performance are the three most important determinants of green innovation.

4.3 Moderating Role of Green Shared Vision

Findings of moderating role of green shared vision on the association between green innovation and EP also illustrated in table 5. We accept the H_6 because results revealed that green shared vision brings a 22.2 percent positive influence on environmental performance through GI (interaction term impact .222 and p .000). This scenario reveals that how green innovation with the interaction of green shared vison of employees and managers can increase the performance of companies. While below figure 2 showed the high and low moderating effects of GSV.

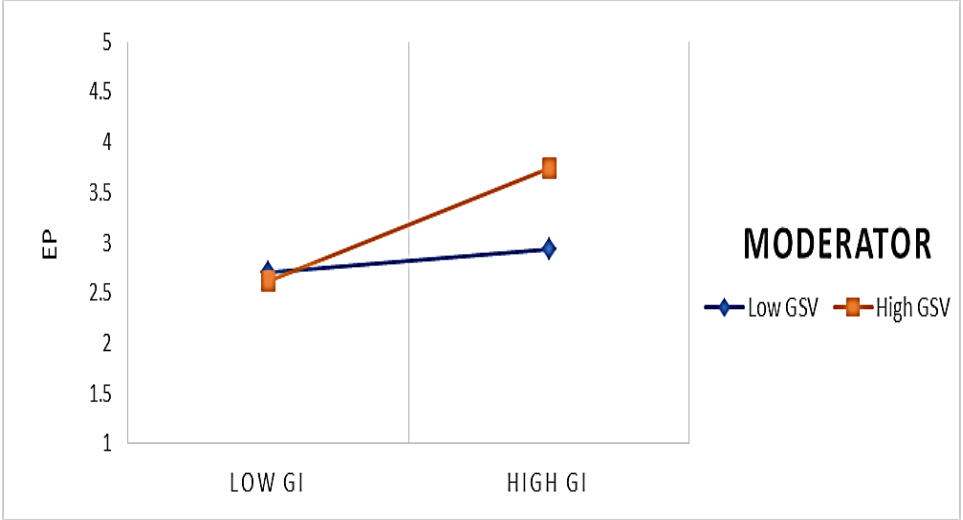

Figure 2: Moderating Effect of GSV between GI and EP

5. Discussion

In this study, we investigate the mechanism by which GHRM policy impacts GI. Green creativity was introduced as a mediator to explore the relationship among GHRM and GI. Green shared vision was analyzed to explain the bond among green innovation and EP. According to the findings of this study, GHRM improves employees' green creativity. This outcome is consistent with the study of Chen and Chang (2013) and Al-Hawari et al. (2021). Al-Hawari et al. (2021) used the data collected from 201 frontline employees and 96 mangers of hotel to test the impact of green HRM on employee GC. Results suggests that green HRM practices upsurge the green creativity of employees. Therefore, hypothesis 1 of the study is supported. The association between GHRM and green creativity was not much explored by subsequent empirical studies (Chaudhry & Amir, 2020; Dumont et al., 2017; Saeed et al., 2019). Eco-friendly organizational policies and commitment to apply GHRM practices influence employee behavior and encourage them to engage in green practices as confirmed by prior studies (Ahmad et al., 2021; Singh et al., 2020). Impact of GHRM and green creativity on green innovation was also investigated in our study. Results indicate that green HRM and green creativity helps companies to achieve sustainable competitive advantages by using the green innovation. After that green creativity was introduced to discover the association among GHRM and GI. Results posit that green creativity significantly mediates the link between GHRM and GI that is consistent with the findings of Song and Yu (2018). We also found that GHRM indirectly impacts green innovation via green creativity means that GHRM significantly influence green creativity and green creativity positively influences the green innovation. This thought offers a new outlook for companies who aim to improve green innovation. So, hypothesis 2, 3 and 4 also accepted. Our study findings further advance literature in the area of green product

creation and process innovation that urge improved EP of companies (Dubey et al., 2015; Kim & Phillips, 2013; Singh et al., 2020; Weng, Chen & Chen, 2015). The study findings also support the hypothesis that the influence of green innovation on environmental performance is moderator by green shared vision. Employees with green shared vision are more likely to involve in GI, which can help to improve environmental performance. This study brings new models, sound conceptual support and novel consequences to the existing Green HRM literature. Several studies recognize Green HRM's role in influencing green behavior and environmental employee performance (Saeed et al., 2019). Overall, the outcomes of this study sustenance all direct and indirect hypotheses, and they have a number of implications.

7. Study Conclusion

The idea behind this study is to achieve environmental sustainability through green initiatives. Therefore, we investigate the role of GHRM, green creativity, and green innovation for environmental performance. We also investigate the importance of a green shared vision in order to promote environmental performance in Pakistani industries. We used quantitative data for the generalizability of the findings and provide the implication in practical and theoretical perspectives as well. Our study would assist our readers, how GHRM practices help the industry to sustain the environment.

8. Limitations and Future Suggestions

This study has some limitations that can be covered by future researchers. At first, in our study green creativity was investigated as a mediating role for the effect of green HRM on green innovation that leads to environmental performance. In addition, this study did not look at environmental beliefs and values at the employee level to see if they played a moderating impact on EP. This study was undertaken only in Pakistan that limits the generalizability of the findings. Green HRM is a relatively recent I dea, so it may take some time to affect employees' behavioral outcomes. This study disregarded this principle and collected data at a particular point in time, raising concerns about causality.

In this analysis we have used green creativity as a mediator while potential scholars can also use other factors such as individual green values, corporate pride, green vision, human capital and motivational perspectives. We suggest that future study expand our research framework to incorporate employees' environmental ideas and values as a moderator on the impact of green HRM and green innovation. Furthermore, our sample consists of Pakistani companies, data should be collected from other countries to generalize these findings. The influence of GHRM on non-green work behaviors and attitudes has yet to be thoroughly examined, so it is worth proposing that prospect study on Green HRM should look at how it affects employees' non-green perceptions and attitudes. Such studies will contribute to the literature on HRM from a sustainability viewpoint, as well as contribute to awareness about employee corporate green outcomes.

9. Implications

This study has some practical implications to report for organizations and professionals. Organization should engage in green HRM practices and see them as a competitive asset

for directing human potential into environmental protection activities. HRM administrators should be empowered in terms of GHRM activities because they are accountable for executing the objectives of the institute for environmental sustainability. Furthermore, workers should be motivated and enabled to carry out their responsibilities in accordance with the organization's green standards. Personnel should be made aware of environmental issues via sustainability training, which will enable them to understand the green concepts. Employees can later use the expertise and skills learned via training programs to implement green initiatives. Such training will develop workers' basic skills in implementing green principles and support in the achievement of green management objectives. As proposed by Pham et al. (2019) the GHRM practices should allow administrators to instruct workers in environmental behaviors, such as recognizing and categorizing waste and reducing pollution and use of energy, by systematic training in environmental practices. To recruit candidates who are environmentally conscious, the organization can spread its environmental sustainability concept on its website or via social media. Employees' green conduct should be addressed properly (Dumont et al., 2017) and this behavior should be aligned with promotional opportunities, pay, and rewards, as well as encouraging and motivating them to participate in green initiatives. For instance, workers are encouraged to purchase new energy cars and subsidies are provided by organizations. These kinds of struggles and support to workers will assist the company to improve and maintain its EP. As a result, our research has a wide range of practical implications for administrators, leaders, and policymakers interested in achieving and maintaining superior EP through GHRM activities, green innovation, green shared vision, and green creativity.

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