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Fostering innovation through green HRM: The mediating role of organizational support and green commitment

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Abstract

This study aims to investigate the role of green human resource management (GHRM) on innovative work behavior in helping organizations to implement environmentally friendly business practices. By using natural resource-based view and social exchange theory as theoretical lens, we consider the role of green HRM, perceived organizational support for the environment, green knowledge sharing, and green commitment as antecedents of innovative work behavior. The sample is 215 employees from the MSME's manufacturing industrial sector in West Java province selected using purposive sampling, then the data was analyzed using structural equation models (SEM-PLS). The research results show that GHRM practices have a positive and significant influence on green commitment, green knowledge sharing, and innovative work behavior. Apart from that, the moderating role of green knowledge sharing is found to strengthen the relationship between green human resource management and green commitment. The mediating role of green commitment in the relationship between GHRM and employee innovative work behavior is also confirmed. This study also found that organizational support indirectly influences green commitment. The findings of this study provide contribution to the literature, especially in the field of organizational behavior by emphasizing the role of GHRM practice to stimulate innovative work behavior of employees. It also provides practical implications for organizations to adopt environmentally friendly business practices as an effort to improve their positive outcomes of the employees.

Introduction

The phenomenon of environmental pollution caused by the massive use of plastic in the industrial sector has received a lot of attention. Currently, addressing issues of environmental problem becomes a major challenge for organizations to achieve business sustainability (Khan et al., 2022). This rise of environmental concerns has prompted organizations to adopt sustainable practices, with green human resource management (GHRM) emerging as a critical approach (Singh et al., 2020). GHRM refers to the integration of environmentally sustainable practices into HR policies and processes (Mukherji & Bhatnagar, 2022) which aims to foster eco-friendly behavior among employees and enhance environmental performance of the organizations (Yong et al., 2020; Rubel et al., 2020). In the GHRM framework, employee performance is measured based on achievements and innovation in carrying out environmentally friendly work. The influence of GHRM on employee behavior can lead to the achievement of business sustainability (Khan et al., 2022; Yang & Li, 2023; Yong et al., 2020) and employee environmentally-friendly behavior (Chaudhary, 2020).

Previous studies have highlighted the effectiveness of GHRM in reducing environmental waste, promoting sustainable practices (Rashid et al., 2023), as well as leading both organizations and employees to achieve various positive outcomes. According to Paillé and Valéau (2021), GHRM is positively related to employee commitment towards the environment, while another

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study from Yang and Li (2023) suggests the positive influence of GHRM on green knowledge sharing. The positive attributes of GHRM practice is also found to predict employees' innovative work behavior (Aboramadan, 2022). Despite its potential, the practical implementation of GHRM in the MSMEs sector remains limited, particularly in Indonesia, where diverse business significantly contribute to the national economy; yet they continue facing challenges in environmental sustainability.

In addition, the exploration within the literature regarding the impact of GHRM on innovative work behavior of employees is still deemed to be limited, especially on the mechanisms or boundary conditions (Singh et al., 2020; Yang & Li, 2023). Existing studies have also predominantly focused on large organizations (Paillé & Valéau, 2021; Yong et al., 2020; Yang & Li, 2023), leaving a gap in understanding how GHRM practices influence employee innovative work behavior in MSMEs context. Furthermore, the mediating roles of perceived organizational support for the environment (POSE) as well as the moderating role of green knowledge sharing have not been comprehensively explored in this context (Ahmad et al., 2023; Hameed et al., 2022). Therefore, this study seeks to address these gaps by examining the nuanced impacts of GHRM within MSMEs as emerging markets.

To provide robust theoretical foundation, this study uses natural resource-based view (NRBV) and social exchange theory (SET). The NRBV emphasizes the strategic advantage organizations gain by managing resources and capability with concerns towards the environment (O'Reilly & Chatman, 1986), which align with the objective of GHRM. On the other hand, SET focuses on the reciprocal relationship between employees and organizations (Rhoades & Eisenberger, 2002), where organizational support and commitment can enhance employee innovative work behavior. By integrating these theories, this study aims to elucidate the mechanisms through which GHRM practices can foster employee commitment, knowledge sharing, and innovative work behavior.

This study aims to contribute to the existing body of knowledge by exploring the role of GHRM in promoting environmentally-friendly business practices within the MSMEs sector. It provides insights of the mechanisms through which GHRM practices influence employee innovative behavior. Specifically, the present study investigates how GHRM leads to green commitment, green knowledge sharing, and innovative work behavior. It further examines how POSE mediates the relationship between GHRM and green commitment, and how green knowledge sharing moderates the relationship between GHRM and green commitment. This study can thus enhance the understanding of sustainable business practices in MSMEs organizational context.

Literature Review and Hypotheses Development

Natural Resource-Based View (NRBV)

Barney first introduced the theory of the resource-based view (RBV), which posits that an organization's sustainable competitive advantage stems from its unique resources and capabilities that are valuable, rare, inimitable, and non-substitutable. By leveraging these resources, organizations can achieve and maintain superior performance (Barney, 2001). Building on RBV, the natural resource-based view (NRBV) emphasizes the strategic importance of environmental resources and sustainable practices in achieving sustainable competitive advantage (O'Reilly & Chatman, 1986). This theoretical lens suggests that by integrating environmentally sustainable practices, such as GHRM, organizations can enhance their capabilities, foster innovation, and improve overall performance. The NRBV has been utilized by Yang et al. (2023) in explaining how GHRM can lead to voluntary green work behavior. In addition, McDougall et al. (2019) also uses NRBV to explain the interrelation between GHRM and positive behavioral outcomes of employees.

Social Exchange Theory (SET)

Social exchange theory (SET) posits that social behavior is the result of an exchange process where individuals seek to maximize benefits and minimize costs in their relationships (Blau, 1964). This theory suggests that relationships are built on reciprocal exchanges, where mutual benefits and

obligations foster trust and commitment. In an organizational context, SET can be applied to understand how employee perceptions of support and fairness influence their attitudes and behaviors (Rhoades & Eisenberger, 2002). SET can effectively depict the interrelationship between GHRM practices, POSE, and employee behaviors such as green commitment and innovative work behavior. When organizations invest in GHRM practices, they signal their commitment to environmental sustainability, leading employees to reciprocate with higher green commitment and innovative work behavior due to the perceived organizational support. Previous studies have also employed SET as their theoretical framework, such as McDougall et al. (2019) who emphasized the role of perceived organizational support on affective commitment and innovative behavior. In addition, Gope et al. (2018) uses SET to depicts the relationship which existed between GHRM and environmental performance of employees.

GHRM, Green Commitment, and Green Knowledge Sharing

GHRM involves the integration of environmentally-friendly practices into various HR functions (Renwick, 2016; Mustafa et al., 2023), such as recruitment, performance appraisal, rewards, and training, to promote sustainable behavior among employees. On the other hand, green commitment refers to the dedication and attachment possessed by employees towards environmental sustainability within the organization (Rubel et al., 2018; Shoaib et al., 2021).

Drawing from the NRBV, organizations that strategically manage their natural resources and implement sustainable practices can achieve a competitive advantage (O'Reilly & Chatman, 1986). By integrating GHRM practices, organizations signal their commitment to environmental sustainability, which can foster a sense of responsibility and attachment among employees. This alignment with organizational values can enhance employees' green commitment as they perceive their contributions as valuable to the organization's environmental goals.

Mustafa et al. (2023) indicated that GHRM practices consider environmentally-friendly behavior in performance appraisals, rewards, compensation, and promotions, motivating employees to engage in eco-friendly activities. Studies by Mukherji and Bhatnagar (2022) and Saeed et al. (2019) emphasized the importance of recruiting employees with environmentally friendly attitudes, skills, and performance, as it can lead to higher green commitment. Additionally, Rubel et al. (2018) confirmed a positive relationship between GHRM and employee commitment. Similarly, research by Saeed et al. (2019) and Fawehinmi et al. (2020) found that GHRM can stimulate positive employee behavior, attitudes, and commitment towards environmental sustainability. The first hypothesis is proposed as follows:
H_1: GHRM has a positive and significant relationship to green commitment (GC).

Knowledge sharing, as described by Hansen (1999), involves the communication and reception of knowledge within an organization. It encompasses the sharing of information, work experiences, thoughts, and ideas among colleagues (Yang & Li, 2023). Knowledge sharing can be explicit, involving clear and structured information; or tacit, involving personal insights and experiences. In the context of green practices, green knowledge sharing refers to the exchange of information and ideas related to environmentally-friendly practices (Van Den Hooff & De Ridder, 2004).

From the NRBV, it is posited that organizations that effectively manage and utilize their knowledge (as resources) can gain a competitive advantage (O'Reilly & Chatman, 1986). In this regard, implementing GHRM practices promotes a culture where environmental knowledge is valued and shared. This encourages employees to disseminate both explicit and tacit knowledge about green practices and foster a collaborative environment. When organizations prioritizes GHRM, they create a supportive atmosphere that motivates employees to share their environmental knowledge and skills, thus enhancing overall organizational performance.

The study from Gope et al. (2018) highlights that HRM practices in general is crucial for generating knowledge sharing in organization. Similarly, Yang and Li (2023) proved that the implementation of GHRM practice in the organization can create a positive atmosphere for knowledge sharing between employees. The role of GHRM practice in influencing green

knowledge sharing for banking employees have also been confirmed by Rashid et al. (2023). The second hypothesis is proposed as follows:
H_2: GHRM has a positive and significant effect on green knowledge sharing (GKS).

GHRM integrates environmental management concepts into HR processes to achieve organizational sustainability goals. It encompasses pro-environmental behaviors and environmentally friendly initiatives developed by managers for employees (Roscoe et al., 2019). GHRM includes a range of practices, such as eco-friendly recruitment, training, job design, and employee participation, all aimed at fostering an environmentally friendly business strategy (Tang et al., 2018; Paillé et al., 2014).

Drawing from the natural resource-based view (NRBV), organizations that embed environmental sustainability into their HR practices can cultivate a culture of innovation. By implementing GHRM, companies signal their commitment to environmental goals, encouraging employees to engage in innovative work behavior. The structured support and resources provided through GHRM enable employees to think creatively and develop sustainable solutions. This alignment with organizational environmental goals empowers employees to contribute innovative ideas and practices, enhancing overall sustainability, and driving innovative work behavior.

The findings from Song et al. (2020) demonstrate that implementing GHRM concepts allows employees to make innovative, environmentally friendly decisions and behaviors. Additionally, Kara et al. (2023) found that GHRM plays a partial role in influencing employee innovation behavior, supporting the idea that environmentally focused HR practices can foster innovative work behavior. Additionally, Roscoe et al. (2019) and Tang et al. (2018) emphasize the role of GHRM in developing a pro-environmental organizational culture, which is conducive to innovative work behavior. The third hypothesis is proposed as follows:
H_3: GHRM has a positive and significant effect on innovative work behavior (IWB).

Perceived Organizational Support for the Environment as a Mediating Variable

As previously expained, GHRM encompasses HR practices that integrate environmental management into various functions, such as green recruitment, green training, and green performance appraisals (Renwick, 2016). These practices aim to promote and support environmentally friendly behaviors among employees. Perceived organizational support for the environment (POSE) arises when employees perceive that their organization values their contributions to environmental sustainability and cares about their well-being in this regard (Hameed et al., 2022; Karatepe et al., 2022). This perception can foster green commitment, which reflects employees' dedication and attachment to the organization's environmental goals. Together, these concepts highlight how GHRM practices can enhance employees' perceptions of organizational support for the environment, which in turn can strengthen their commitment to the organization's environmental objectives.

Drawing from social exchange theory (SET), when organizations demonstrate support for environmental initiatives through GHRM practices, employees are likely to reciprocate with increased commitment to the organization's green goals. Implementing GHRM practices such as eco-friendly recruitment, training, and rewards sends a clear message that the organization values environmental sustainability and supports employees' contributions to it. This perceived support strengthens employees' green commitment, as they feel acknowledged and supported in their environmental efforts. Thus, POSE serves as a crucial mediating variable as it enhances the relationship between GHRM and green commitment by reinforcing the mutual exchange of support and commitment.

Existing studies have acknowledged that GHRM practices form the basis for developing POSE (Aboramadan & Karatepe, 2021), as this environmentally friendly HR practices signal that the organization values and supports employees' environmental contribution (Pinzone et al., 2019). In this regard, the findings from Cantor et al. (2012) indicate that the support for employees' pro-environmental behavior can foster a belief in the organization's commitment to environmental issues. Similarly, Tremblay et al. (2010) discussed how HR practices influence employee

commitment through perceived organizational support. The study from Hameed et al. (2022) found that POSE mediates the relationship between GHRM and green commitment, supporting the idea that perceived support strengthens the connection between GHRM and employees' green commitment. Thus the next hypothesis is proposed as follows:
H_4: POSE mediates the relationship between GHRM and GC.

Green Knowledge Sharing as a Moderating Variable

According to Ahmad et al. (2023); Yang and Li (2023), green knowledge sharing involves sharing knowledge related to environmentally friendly behaviors, technologies, and initiatives among employees in an organization. This exchange of green knowledge can enhance employees' understanding and commitment to implementing environmentally sustainable practices within the organization. Drawing from social exchange theory (SET) (Rhoades & Eisenberger, 2002), knowledge sharing is viewed as a form of social exchange behavior where employees contribute and receive valuable information. When organizations promote green knowledge sharing through GHRM practices, employees gain access to critical information about environmental standards and processes. This access not only enhances their knowledge but also strengthens their commitment to the organization's green goals. Thus, green knowledge sharing is predicted to be able to moderate the relationship between GHRM and green commitment by facilitating a more robust exchange of environmental knowledge and reinforcing employees' dedication to sustainability.

Ahmad et al. (2023) highlighted the significant impact of green knowledge sharing on enhancing employee commitment to improving performance within environmentally friendly contexts. In addition, research by Rubel et al. (2020) and Song et al. (2021) underscored the role of knowledge sharing in increasing employee commitment to environmental principles. Regarding this, Khan et al. (2022) found that high levels of green knowledge sharing can amplify the positive relationship between GHRM and green commitment. These studies collectively support the hypothesis that green knowledge sharing moderates the relationship between GHRM and green commitment, suggesting that stronger knowledge sharing enhances the effectiveness of GHRM practices in promoting environmental commitment. Thus, the fifth hypothesis is proposed as follows:
H_5: GKS moderates the relationship between GHRM and GC. The relationship between GHRM and GC will be stronger when GKS is in high level.

Green Commitment as a Mediating Variable

As stated by Ahmed et al. (2023), green commitment specifically relates to employees' psychological attachment and sense of responsibility towards environmental sustainability within their organization. It has been known that employee commitment is crucial in influencing behaviors within the organization. Based on SET, when employees perceive that their organization provides support for them through GHRM practices, they are more likely to be committed and engaged in innovative work behaviors that contribute to environmental sustainability. Green commitment thus predicted to mediate the relationship between GHRM and innovative work behavior, as employees who are committed to environmentally friendly practices are motivated to acquire and apply green knowledge and skills, hence generating innovative ideas for sustainability initiatives.

Bibi et al. (2019) and Shoaib et al. (2021) emphasized the role of employee commitment in fostering organizational goals and innovative behavior. Studies also suggest that green commitment is pivotal in driving environmentally friendly innovation behaviors (Ahmed et al., 2023). These findings indicate that employee commitment plays a mediating role between GHRM practices and innovative work behavior, highlighting the importance of psychological attachment and responsibility towards environmental goals. Thus, the final hypothesis is proposed as follows:
H_6: GC mediates the relationship between GHRM and innovative work behavior (IWB).

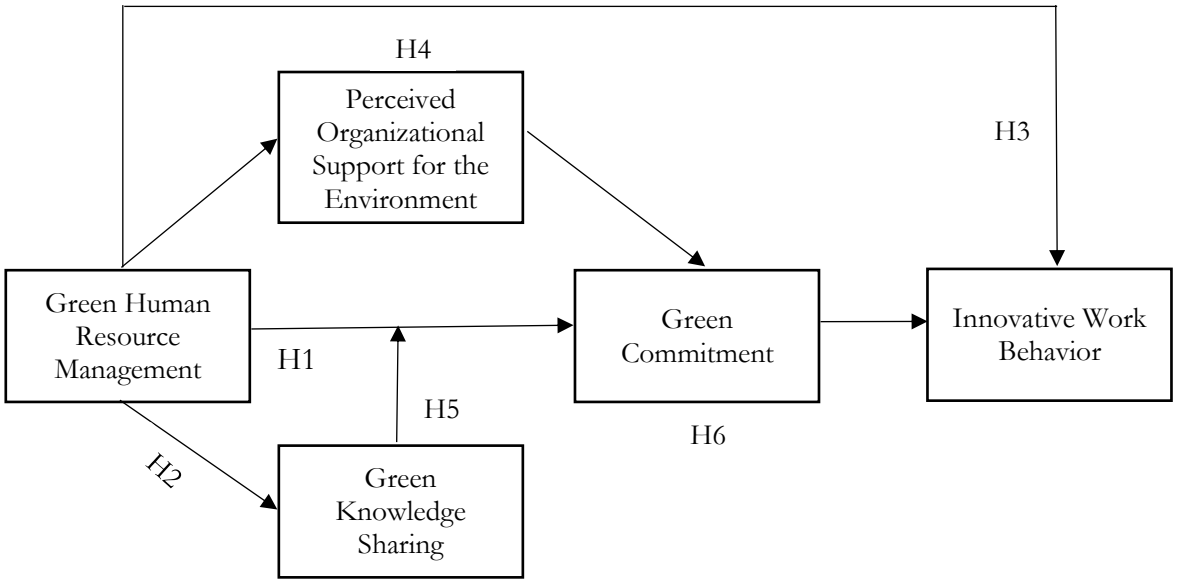

Figure 1. Conceptual Framework

Research Methods

This study adopts a quantitative approach using survey methods to investigate the relationship between variables and generalize the findings within the context of MSMEs in Bandung, West Java Province. The research adopts a cross-sectional design to collect data from employees meeting specific criteria. Purposive sampling was utilized to select 215 respondents who fulfilled the following criteria: (1) have worked for at least five years in their respective organizations, and (2) possess knowledge regarding the significance of implementing environmentally friendly business practices. The selection criteria were established to ensure that respondents have sufficient organizational tenure and awareness of environmental practices. Employees with a minimum of five years' tenure are likely to possess substantial experience and insights into organizational dynamics, including the implementation and impact of green initiatives. Furthermore, knowledge of environmentally friendly practices ensures that respondents can provide informed perspectives on the study variables, thereby enhancing the reliability and relevance of the data collected.

To mitigate potential common method bias, several steps were taken during the data collection process. First, a self-administered survey ensured anonymity and confidentiality, encouraging respondents to provide candid responses without fear of repercussion. Secondly, the questionnaire was designed to include measures with varying response formats, reducing response biases associated with uniform item formats. Thirdly, the survey included clear instructions to minimize ambiguous or leading questions that could influence respondents' answers (Hair et al., 2016). The collected data were analyzed using the Structural Equation Modeling (SEM) approach with Partial Least Squares (PLS) estimation. SEM-PLS is chosen for its ability to handle complex relationships among variables and its suitability for exploratory research aiming to validate theoretical models and relationships.

Variable Measurement

The scale used in this study was adopted from previous research which has been previously validated. All items are rated using a 5-point Likert scale (1 to 5), with 1 indicating 'strongly disagree' while 5 indicating 'strongly agree'. The measurements of each variable are as follows:

1. Green human resources management (GHRM) was measured by six items adopted from Dumont et al. (2017) which is measured through practices such as setting green goals, green values training, and green skills. An example of an item is "the company has set environmentally friendly goals for its employees".
2. Perceived organizational support for the environment (POSE) was measured using four items adopted from Lamm et al. (2015) and Temminck et al. (2015). Examples of items are "my

organization cares a lot about my views on the environment" and "my actions on sustainability are valued by my organization".

3. Green commitment (GC) is measured by eight items adopted from Raineri and Paillé (2016). An example of an item is "I am very concerned about companies that do not implement environmentally friendly practices".
4. Green knowledge sharing (GKS) was measured by five items adopted from Lin (2007). An example of a statement is "I will tell my colleagues when I have new skills".
5. Innovative work behavior (IWB) is measured by four items adopted from research Zhang et al. (2018), an example of a statement is "I often have environmentally friendly ideas to reduce waste in my work".

Results and Discussion

Respondent Characteristics

In demographic analysis, the sample shows that the majority of respondents are male, which is 120 compared to 95 female respondents. Based on age criteria, the majority of respondents are aged 25 to 30 years old for as many as 63 respondents and have worked for 5 to 8 years (93) respondents. Then the majority of respondents (83 respondents) had a moderate understanding towards awareness of the environment.

Table 1. Respondent Profile

Categories	Frequency	Percentage
Gender		
Male	120	55.81%
Female	95	44.19%
Ages		
20 to 25 years old	22	10.23%
26 to 30 years old	63	29.30%
30 to 35 years old	75	34.88%
>35 years old	55	25.58%
Working time		
3 to 5 years	47	21.86%
5 to 8 years	93	43.26%
>8 years	75	34.88%
Employee awareness toward the environment		
Very high	57	26.51%
High	43	38.60%
Medium	83	20.00%
Low	22	10.23%
Very low	10	4.65%
Type of industry		
Manufacturing	96	44.66%
Retail	78	36.27%
Services	41	19.07%

Descriptive Analysis

The average value and standard deviation for each variable are shown in Table 2. The average value for GHRM is 4.126, which indicates that respondents agree to behave environmentally friendly. The average score on POSE is 4.249, this shows that respondents have the motivation to support environmentally friendly organizations. The average score for green commitment is 4.192, meaning that respondents have a good commitment to the organization through implementing environmentally friendly organizations. The average score for green knowledge sharing is 3.661, which shows that respondents have the ability to share information related to environmental knowledge and skills that can be beneficial for employees and organizations. The average score on

innovative work behavior is 4.136, which shows that respondents agree to implement innovation in their work.

Furthermore, Table 2 presents the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy results are as follows: green commitment (0.822), GHRM (0.786), innovative work behavior (0.782), green knowledge sharing (0.900), and POSE (0.749). These values indicate that the sample is adequate for factor analysis. Specifically, KMO values above 0.80 are considered meritorious, indicating that the data is highly suitable for factor analysis. Values between 0.70 and 0.80 are middling, still supporting the appropriateness of factor analysis. Therefore, all variables in this study exhibit satisfactory KMO values, confirming the adequacy of the sample for the analysis conducted.

Validity and Reliability

Table 2 shows the results of validity and reliability tests with Cronbach's alpha, composite reliability (CR), and AVE test parameters. From the table it can be seen that each variable has a good reliability value with Cronbach's alpha exceeding 0.80. Based on recommendations from Hair et al. (2016). The resulting factor loading is higher than 0.7, AVE ranges between 0.584 and 0.695 and composite reliability ranges between 0.899 and 0.963. Therefore, all three standards of convergent validity can be achieved.

Table 2. Results of Validity and Reliability Test

Constructs	Item Code	Loadings	Mean	SD	Cronbach's alpha	KMO	AVE	CR
Green commitment (GC)	GC1	0.748	4.192	0.825	0.863	0.822	0.584	0.918
	GC2	0.811						
	GC3	0.705						
	GC4	0.745						
	GC5	0.790						
	GC6	0.782						
	GC7	0.746						
	GC8	0.783						
Green human resources management (GHRM)	GHRM1	0.743	4.126	0.902	0.864	0.786	0.617	0.906
	GHRM2	0.737						
	GHRM3	0.778						
	GHRM4	0.812						
	GHRM5	0.863						
	GHRM6	0.781						
Innovative work behavior (IWB)	IWB1	0.749	4.136	0.786	0.852	0.782	0.695	0.901
	IWB2	0.871						
	IWB3	0.869						
	IWB4	0.840						
Green knowledge sharing (GKS)	GKS1	0.903	3.661	1.132	0.952	0.900	0.838	0.963
	GKS2	0.902						
	GKS3	0.923						
	GKS4	0.927						
	GKS5	0.921						
Perceived organizational support for the environment (POSE)	POSE1	0.848	4.249	0.838	0.850	0.749	0.691	0.899
	POSE2	0.872						
	POSE3	0.782						
	POSE4	0.820						

Collinearity Analysis

The variance inflation factor (VIF) values were calculated to test for multicollinearity symptoms among the independent variables (Hair et al., 2016). The results indicated that the VIF values for GHRM, green knowledge sharing (GKS), green commitment (GC), and perceived organizational

support for the environment (POSE) were 1.727, 1.168, 1.647, and 1.596, respectively. Since all VIF values are below the threshold of 5, these results suggest that there are no significant multicollinearity issues among the independent variables in this study.

Common Method Deviation Test

Common method variance may occur in single-source or cross-sectional data. So Harman's one-factor test was carried out. The Kaiser-Meyer-Olkin (KMO) value for each variable has a scale > 0.7 with the help of SPSS 23.0 (Hair et al., 2016).

Discriminant Validity

The discriminant validity test was tested using the Fornell-Larcker criterion and the Heterotrait-Monotrait (HTMT) ratio which are shown in Table 3 below. The Fornell-Larcker criterion were carried out by comparing the square root value of AVE to the variable correlation value. From this test, the AVE square root value which is greater than the variable correlation value indicates that the factor is different from its interaction with other items. Therefore, convergent and discriminant validity can be achieved. Table 3 shows that the HTMT value for each variable is below 0.85, so discriminant validity is also achieved.

Table 3. Fornell-Larcker Criterion and HTMT Ratio

	Fornell-Larcker Criterion					HTMT Ratio				
	IWB	GHRM	GC	GKS	POSE	IWB	GHRM	GC	GKS	POSE
IWB	0.834									
GHRM	0.305	0.785				0.331				
GC	0.466	0.627	0.764			0.540	0.690			
GKS	0.579	0.283	0.376	0.915		0.641	0.293	0.423		
POSE	0.396	0.592	0.754	0.278	0.831	0.464	0.659	0.815	0.307	

Note. IWB = Innovative work behavior; GHRM = Green human resources management; GC = Green commitment; GKS = Green knowledge sharing; POSE = Perceived organizational support for the environment.

Path Analysis

In Table 4, hypothesis testing shows that of all the hypotheses proposed, all hypotheses can be accepted with the criteria of t-value > 1.96 and p-value < 0.05. Green human resources management (β = 0.249, t = 3.621, p = 0.000) have a positive and significant effect on green commitment, H1 is accepted. Green human resources management (β = 0.283, t = 4.576, p = 0.000) have a positive and significant effect on green knowledge sharing, H2 is accepted. Green human resources management (β = 0.320, t = 3.971, p = 0.000) have a positive and significant effect on innovative work behavior, H3 is accepted. Perceived organizational support for environment (β = 0.335, t = 6.047, p = 0.000) as a mediator variable has a positive and significant effect on the causal relationship between green human resources management and green commitment, H4 is accepted. Green commitment (β = 0.113, t = 3.130, p = 0.002) as a mediator variable has a positive and significant effect on the causal relationship between green human resources management and innovative work behavior, H6 is accepted (for more comfort visualization see at Figure 2).

The moderating effect of green knowledge sharing on the relationship between green human resources management and green commitment was evaluated using the two steps method to predict the moderating impact in PLS-SEM. In Table 4, the interaction of green human resources and green knowledge sharing has a positive effect on green commitment (β = 0.305, t = 6.133, p = 0.000) with a 95% confidence interval, indicating that green knowledge sharing provides a positive moderating role in the influence of green human resources management regarding green commitment, H5 is accepted.

Table 4. Path Coefficients

Path	Path Coefficient	Standard Deviation	t-value	p-value	Decision
H1. GHRM → GC	0.249	0.069	3.621	0.000***	Accepted
H2. GHRM → GKS	0.283	0.062	4.576	0.000***	Accepted
H3. GHRM → IWB	0.320	0.081	3.971	0.000***	Accepted
H4. GHRM → POSE → GC	0.335	0.052	6.407	0.000***	Accepted
H5. GHRM x GKS → GC	0.305	0.050	6.133	0.000***	Accepted
H6. GHRM → GC → IWB	0.113	0.036	3.130	0.002**	Accepted

Note. IWB = Innovative work behavior; GHRM = Green human resources management; GC = Green commitment; GKS = Green knowledge sharing; POSE = Perceived organizational support for the environment.
*p<0.05; **p<0.01; ***p<0.000.

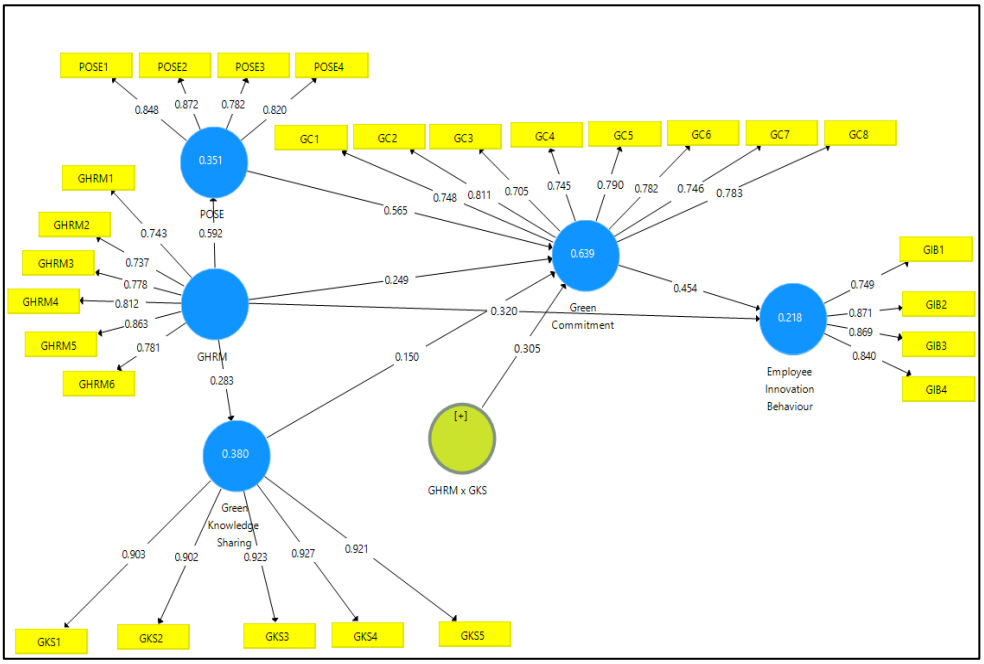

Figure 2. Outer-Inner Model Examination Result

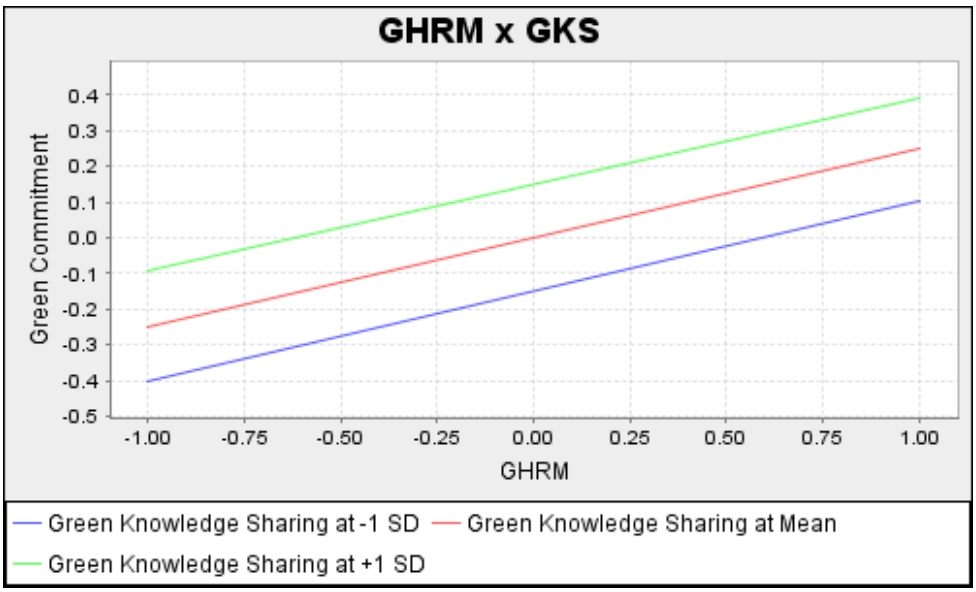

Figure 3. Simple Slope Graph of GKS Moderating Effect on the Relationship between GHRM and GC

Discussion

In a complex and continuously developing business context, an organization's ability to respond to opportunities and anticipate threats becomes very important. This research tries to understand the influence of GHRM on employee innovation behavior by looking at the role of POSE and green commitment as mediation and green knowledge sharing as moderation. Through this research, we found that GHRM has a direct effect on green commitment. As stated Khan et al. (2024) that GHRM is an approach to human resource management that aims to integrate sustainability principles and environmentally friendly business practices in HR management activities. The results of these findings support the idea that GHRM practices can develop environmentally friendly commitment so that it can lead to improved behavior when doing work. According to Shoaib et al. (2021) states that GHRM provides a mechanism for measuring employee commitment to the organization and has a significant impact.

Then, the results of this research also found that GHRM had an effect on green knowledge sharing. The results of this research show that the development of employee skills, knowledge and abilities which is part of human resource management can be a predictor for employees to exchange knowledge with each other. As stated by Rubel et al. (2020) that GHRM can be used as an organizational strategy to encourage and facilitate the exchange of environmentally friendly information among employees. Further findings found that GHRM in the MSME's industrial sector emphasizes environmentally friendly business practices in managing labor and assigning tasks. When this practice is implemented well, GHRM can have a positive impact on employee innovative behavior. This can be seen from the findings that in the city of Bandung, the transition from plastic use towards environmentally friendly packaging has been widely implemented in line with increasing awareness of the importance of protecting the environment. This research is in line with the results of Yang and Li (2023) that the interaction of GHRM on innovative behavior can encourage employees to care and tend to be more open to innovative ideas that can contribute to the sustainability and efficiency of business performance.

Furthermore, the results of this research found that perceived organizational support for the environment can mediate the relationship between GHRM and employee commitment. The research results show that working conditions related to GHRM practices can send a message to employees that the organization appreciates efforts to implement environmental business. The results of this study are in line with research (Karatepe et al., 2022). Thus, GHRM is an organizational support for the environment provided by the organization. Employee perceptions of organizational support can increase their commitment to implementing environmentally friendly business practices. The moderating effect of this research also found that shared knowledge is a predictor that can increase the relationship between GHRM and organizational commitment (see Figure 3). Rashid et al. (2023) said that sharing knowledge can increase employee commitment to their responsibilities in implementing environmentally friendly business. As stated by Dezi et al. (2021) that knowledge management is an important factor that can improve employee performance in the workplace.

Finally, this research proves that green commitment mediates the relationship between GHRM and employee innovative behavior. As stated Khan et al. (2024) that green commitment is considered as the underlying mechanism between the relationship between GHRM and employee innovation behavior. The results of this research indicate that organizations that adopt and implement GHRM practices can make employees more committed to their environment, which in turn influences employee innovative behavior in the workplace. In this research, employee commitment is explained as the level of loyalty, involvement and loyalty felt by employees towards the organization. Thus, when GHRM practices in an organization are very strong, it can increase employee commitment which in turn leads to innovative employee behavior.

Implication and Conclusion

The findings of this research contribute significantly to the theoretical frameworks of the natural resource-based view (NRBV) and social exchange theory (SET) by demonstrating how integrating

environmentally friendly human resource practices can foster innovative employee behavior and enhance organizational commitment to sustainability. This study extends the application of NRBV by linking it to GHRM practices and innovative work behavior, while SET underscores the reciprocal relationship between organizational support and employee commitment to green practices. The implications of this research for practice are profound, suggesting that organizations, especially in the MSMEs sector, should adopt GHRM practices to not only meet environmental goals but also to cultivate a committed and innovative workforce. By embedding green criteria in recruitment, training, and performance evaluations, organizations can enhance their environmental performance and competitive advantage.

However, this study has several limitations, particularly in methodological aspects such as the cross-sectional design, which limits the ability to infer causality. The reliance on self-reported data may also introduce common method bias. Future research could address these limitations by employing longitudinal designs and multi-source data to validate and extend the findings. Additionally, exploring the role of cultural factors in the relationship between GHRM practices and innovative behavior could provide deeper insights. Overall, this study highlights the critical role of GHRM in promoting sustainable business practices and offers valuable directions for further investigation in this evolving field.

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