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Bridging green HRM and employee environmental behaviour: A multi-path mediation model with leadership contingencies

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Abstract: This study contributes to GHRM literature through the development of a dual-path approach in analysing environmentally friendly behaviours from both the cognition and behaviour approaches. Underpinning Social Learning, Social Cognitive and Social Exchange theories, the study identifies the mediating mechanisms and servant leadership as a moderator. Data collected from 293 shipping employees in Surabaya, Indonesia using survey questionnaires were analysed using PLS-SEM. The results indicate that GHRM positively influences eco-friendly behaviours directly as well as indirectly through the two mediators. This study confirms that both environmental awareness and proactive pro-environmental performance contribute as complementary mechanisms for connecting GHRM to behaviours. Servant leadership is found to negatively moderate environmental awareness; this means the existence of a substitution mechanism in terms of leadership style and HRM. In addition, the findings highlight the importance of formal green HR practices in encouraging sustainable employee conduct within environmentally sensitive industries. This study brings some new contributions to the literature on the relationship between GHRM and eco-friendly behaviour.

Keywords: *Eco-friendly behaviour, Environmental awareness, Green human resource management, Servant leadership.*

1. Introduction

The deterioration of the environment and the phenomenon of global warming have emerged as two of the most urgent global challenges impacting environmental sustainability and economic stability. Rapid industrialization, resource exploitation, and greenhouse gas emissions have contributed to worsening the environmental situation. In developing countries such as Indonesia, this problem becomes more acute because the development of industry goes along with poor environmental management and pollution of the environment. It has been reported that Indonesia has become one of the significant countries influencing global environmental problems, contributing to issues such as plastic waste production and carbon emissions, as industries and transport sectors operate there extensively.

Shipping and maritime industries form the basis of global trade but are known to be highly influential for the environment at the same time. Shipping companies influence the atmosphere due to greenhouse gas emissions from fuel combustion. Additionally, the marine environment suffers from shipping pollution and ecological degradation, which happen when ships dump waste or cause oil spills. It was estimated that currently, the share of greenhouse gas emissions of the maritime industry forms about 2.9% of global emissions of greenhouse gases.

To overcome the above problems, there have been increased initiatives towards environmentally-oriented management systems, with Green Human Resource Management (GHRM) receiving notable interest in recent years. GHRM involves the use of environmental management concepts in managing employees through recruitment, training, appraisal, and incentive systems in a bid to ensure that employees engage in pro-environmental activities [1, 2]. The effectiveness of GHRM is evident from

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research findings that demonstrate its significance in enhancing employees' environmental attitude and behaviour, hence promoting sustainability [3, 4].

This relationship is based on social learning theory and social cognitive theory, which assert that individuals acquire knowledge through interactions and observations of their surroundings [5]. In the organizational setting, employees develop environmentally responsible behaviour through interaction and observation of organizational behaviour, leadership style, and reinforcement systems in the workplace. This makes GHRM a learning tool for developing pro-environmental behaviour, ultimately resulting in employees becoming eco-friendly.

Despite an increasing number of studies in GHRM, many gaps remain. Firstly, most of previous studies mainly concentrated their efforts on analysing manufacturing or hospitality industries, whereas shipping industry has attracted little attention, especially in developing countries. Secondly, the way GHRM impacts eco-friendly behaviour, namely its mediation via some mediators (environmental awareness and proactive pro-environmental performance) requires more empirical analysis. Thirdly, the potential impact of leadership style on these links remains insufficiently explored.

This study aims to contribute by building and empirically testing a conceptual model. It examines how GHRM influences employees' environmentally friendly behaviour through their environmental awareness and proactive pro-environmental actions, with the moderating influence of servant leadership. Focusing on employees in shipping organizations in Surabaya, Indonesia, this research will bridge the existing gap and offer new insights into this topic.

2. Literature Review and Hypotheses Development

The heightened pressure on companies stemming from environmental concerns has led to a greater demand for the incorporation of sustainability principles in the field of human resource management (HRM). Green Human Resource Management (GHRM) involves adopting organizational strategies that align business objectives with environmental sustainability by incorporating eco-friendly values into HRM practices, such as hiring, training, performance evaluation, and compensation. According to recent research, GHRM serves not only as a means of promoting sustainability but also as a method to influence employees' beliefs and attitudes toward the environment [6, 7].

From a theoretical perspective, GHRM is based on two theories, which include Social Learning Theory (SLT) and Social Cognitive Theory (SCT). In essence, SLT suggests that people acquire new behaviours through social interactions, while SCT explains how people learn from their experiences by emphasizing cognitive aspects and self-efficacy [5]. Applied to organizations, SLT and SCT suggest that employees learn and adopt environmentally friendly behaviours through observations. Therefore, GHRM acts as a trigger for employees' environmental behaviours and cognition.

2.1. Green HRM and Environmental Awareness

Environmental awareness can be defined as the level of awareness of environmental problems possessed by individuals and the degree of knowledge about the actions they should take. This concept is crucial as an antecedent of sustainable action, as increased awareness helps enhance individuals' cognitive and moral engagement toward sustainability efforts.

The findings of recent research indicate that GHRM initiatives lead to increased employee awareness regarding sustainability matters by facilitating training and development and encouraging environmentally friendly attitudes among employees [8, 9]. Training sessions, green communication, and environmental performance appraisal practices facilitate the development of sustainable behaviour. In terms of the SLT model, such activities serve as observational learning mechanisms for developing environmental awareness.

Therefore, it can be hypothesized that:

H_1: Green HRM positively affects environmental awareness.

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2.2. Proactive Pro-Environmental Performance and Green HRM

Proactive pro-environmental performance (PPEP) refers to voluntary and proactive actions taken by individuals regarding the environment. Proactive performance is not a compulsory activity but rather an innovative and creative one, which entails continually improving processes.

In recent times, scholars have found that GHRM contributes significantly to promoting such proactive behaviours through developing a supportive organizational climate and empowering individuals to act environmentally proactively [10, 11]. Organizations train and empower their employees to get involved in environmental issues, thus enhancing sustainability performance.

According to SCT, individuals with greater self-efficacy are more inclined to participate in proactive environmental actions.

Therefore, it can be hypothesized that:

H_2. Green HRM has a positive effect on proactive pro-environmental performance.

2.3. Green HRM and Employees' Eco-Friendly Behaviour

The eco-friendly behaviour (EFB) of employees pertains to the regular activities performed by employees for environmental sustainability purposes, including energy saving, waste reduction, and resource efficiency. GHRM has been proven to be an important factor behind the EFB of employees.

Several studies have indicated that GHRM policies and procedures exert considerable effects on the eco-friendly behaviour of employees because of their impact on attitudes, norms, and behavioural intention [12, 13]. The institutionalization of green values within the organizational structure encourages employees to behave according to organizational standards. Additionally, social exchange theory asserts that employees react favorably to organizational support through desirable behaviour.

Therefore, it can be hypothesized that:

H_3. Green HRM positively impacts employees' eco-friendly behaviour.

2.4. Environmental Awareness and Eco-Friendly Behaviour of Employees

Environmental awareness acts as a cognitive mediator that connects organizational efforts to behavioural consequences. An environmentally aware employee is more prone to exhibit eco-friendly behaviour.

Research studies have revealed that environmental awareness strongly impacts employees' pro-environmental behaviour by making a significant contribution to cognitive evaluation and moral responsibility [14, 15]. In light of SLT theory, environmental awareness helps employees focus on environmental behaviours that need to be imitated.

Therefore, it can be hypothesized that:

H_4. Environmental awareness positively affects the eco-friendly behaviour of employees.

2.5. Proactive Environmental Performance and Employees' Pro-environmental Behaviour

Proactive environmental performance represents a crucial behavioural construct at an elevated level and serves as a significant influencing factor that motivates employees to engage in pro-environmental behaviour.

According to empirical research findings, proactive environmental performance leads to improved sustainability and increased behavioural consistency among employees [10, 16]. Regarding social cognitive theory, proactive behaviour leads to the development of behavioural patterns and intrinsically motivates an individual.

Therefore, it can be hypothesized that:

H_5. Proactive environmental performance positively influences employee pro-environmental behaviour.

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2.6. Role of Mediator Environmental Awareness

Environmental consciousness is regarded as an essential cognitive process that describes how green HRM impacts workers' behaviour toward nature. Through green HRM, there is a significant improvement in awareness that causes behavioural change.

Research in recent years supports the above-mentioned mediation, demonstrating that environmental consciousness influences the connection between GHRM and ecological behaviours (partial or full) [8, 9]. This mediation aligns with SCT, where cognitive processes mediate between environmental stimuli and behavioural output.

Therefore, it can be hypothesized that:

H_6. Environmental awareness mediates the relationship between Green HRM and employees' eco-friendly behaviour.

2.7. Role of Mediator Proactive Pro-Environmental Behaviour

Proactive pro-environmental behaviour may be seen as another driver for employee behaviour because green HRM influences this behaviour. The green HRM framework is instrumental in creating an enabling environment that fosters proactive behaviour and leads to sustainable pro-environmental actions.

Several research findings indicate that the role played by proactive behaviour as a mediator in influencing the association between HRM and sustainability is considerable [10]. Proactive behaviour will be demonstrated by empowered employees in the green HRM system, which will lead to sustainable behaviour.

Therefore, it can be hypothesized that:

H_7. Pro-active pro-environmental behaviour mediates the relationship between Green HRM and the eco-friendly behaviour of employees.

2.8. Moderating Role of Servant Leadership

Servant leadership focuses on serving others, developing people, and creating ethical and sustainable behaviour. The concept of servant leadership serves as a contextual condition that can enhance or inhibit the implementation of green initiatives within GHRM.

Several recent empirical studies show that servant leadership considerably impacts the environment by enhancing trust, empowerment, and value congruence [17]. According to social learning theory, leaders are role models for followers' behaviour.

Therefore, it can be hypothesized that:

H_8. Servant leadership will moderate the association between GHRM and environmental awareness.

H_9. Servant leadership will moderate the association between GHRM and proactive pro-environmental performance.

2.9. Conceptual Framework

Derived from concepts of social learning theory and social cognitive theory, the present research develops a conceptual model wherein GHRM affects the eco-friendly behaviour of employees in a direct and indirect manner via the intervening variables of environmental awareness and proactive performance. The former acts as the cognitive process through which GHRM is translated into behaviour, while the latter acts as the behavioural channel. Servant leadership is then used as the moderator variable influencing the strength of the relationship among the variables involved due to the reinforcement of value alignment and role modeling.

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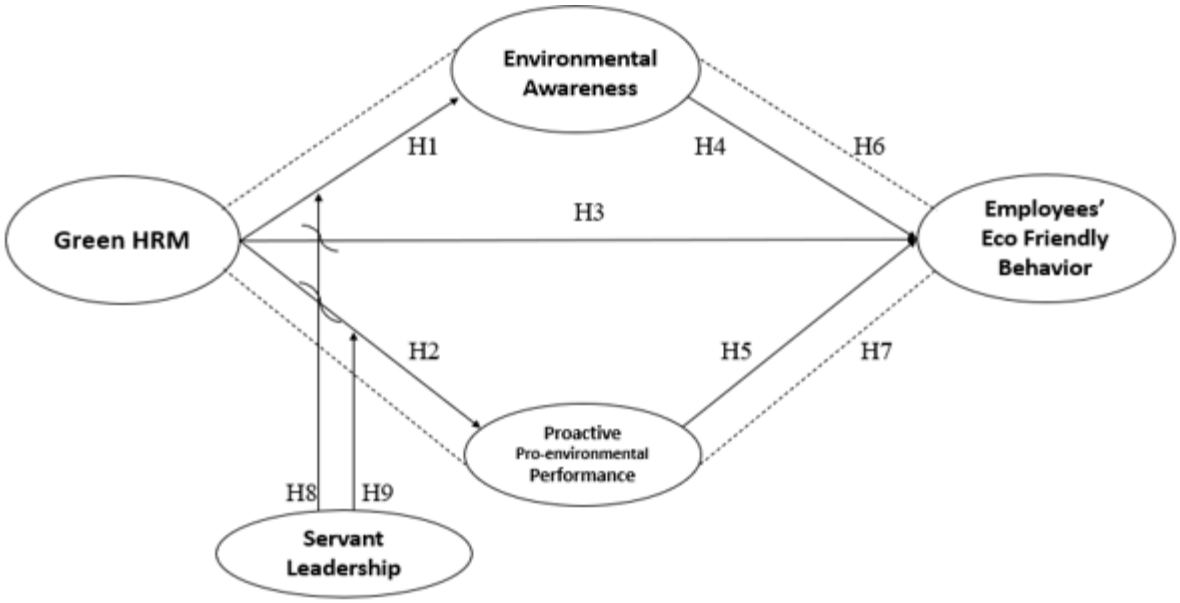

Figure 1.
Conceptual Framework.

3. Methods

3.1. Research Design

This study employs a quantitative approach with an explanatory research framework aimed at examining the connections between Green Human Resource Management (GHRM), environmental consciousness, proactive pro-environmental performance, servant leadership, and employee green behaviours. A conceptual framework derived from Social Learning Theory and Social Cognitive Theory has been created for evaluation.

3.2. Sampling and Data Collection Method

The target population in this study consists of employees from companies engaged in shipping activities in Surabaya, Indonesia. These particular companies have been chosen because of their major effect on the environment and the need to make their operations more sustainable. Altogether, 293 participants were recruited for the study via proportional sampling.

A structured questionnaire was created for data collection and administered personally to the selected participants. Every item in the questionnaire was drawn from previous literature on similar research issues and scaled on a 1-5 five-point Likert scale. To increase content validity, the questionnaire was approved by subject matter experts before administration.

3.3. Measurement of Constructs

The measurement of all constructs included in the current research is considered to be reflective. The measurement of green HRM involved assessing the application of specific green HRM practices, including hiring, training, evaluations, and incentives [1, 3]. The environmental awareness construct involves an employee's knowledge and consideration of environmental problems [9]. The proactive pro-environmental performance construct indicates that employees take voluntary actions toward the environment [10]. Ecological conduct implies that employees' actions are consistent with being environmentally friendly at work [18].

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3.4. Data Analysis Technique

For data analysis, the Partial Least Squares Structural Equation Modeling (PLS-SEM) method was used with the Smart-PLS software. The PLS-SEM model suits predictive studies, complex models, and data that are not normally distributed [19].

The analytical process involved assessing both the measurement model (outer model) and the structural model (inner model). The reliability of indicators was evaluated using factor loadings exceeding 0.70, construct reliability through Cronbach's alpha, and composite reliability above 0.70, convergent validity via Average Variance Extracted greater than 0.50, and discriminant validity with the Heterotrait-Monotrait ratio (HTMT < 0.90).

Path coefficients, t-statistics, and p-values derived from the bootstrapping procedure were used in evaluating the structural model.

4. Results

4.1. Evaluation of Measurement Model

The measurement model was assessed to confirm the constructs' reliability and validity. Table 1 shows that the loading of every indicator exceeds the recommended level of 0.70, indicating acceptable reliability. Additionally, internal consistency reliability was confirmed as all Cronbach's alpha and composite reliability values surpassed the threshold of 0.70 [19].

Regarding convergent validity, all Average Variance Extracted (AVE) values exceeded 0.50. Consequently, the constructs sufficiently explained a substantial portion of the variance in the indicators. Discriminant validity was confirmed concerning the HTMT criterion, as shown in Table 2. All HTMT figures were under 0.90.

Thus, all requirements for the measurement model have been successfully met.

Table 1.
Measurement Model: Reliability and Convergent Validity

Construct	Item	Loading	Cronbach's Alpha	Composite Reliability	AVE
Green HRM	GHRM1	0.812	0.893	0.917	0.690
	GHRM2	0.845			
	GHRM3	0.856			
	GHRM4	0.821			
Environmental Awareness	EA1	0.834	0.876	0.910	0.669
	EA2	0.851			
	EA3	0.792			
	EA4	0.805			
PPEP	PPEP1	0.842	0.881	0.913	0.677
	PPEP2	0.859			
	PPEP3	0.803			
Eco-Friendly Behaviour	EFB1	0.846	0.888	0.918	0.692
	EFB2	0.861			
	EFB3	0.812			
Servant Leadership	SL1	0.833	0.872	0.906	0.657
	SL2	0.847			
	SL3	0.781			

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Table 2.
Discriminant Validity (HTMT).

Construct	GHRM	EA	PPEP	EFB	SL
GHRM	—				
Environmental Awareness	0.742	—			
PPEP	0.768	0.701	—		
Eco-Friendly Behaviour	0.755	0.773	0.712	—	
Servant Leadership	0.689	0.721	0.698	0.705	—

4.2. Structural Model Results

As is evident from Table 3 below, all the direct hypotheses (H1-H5) find empirical support from the structural model results. First, green HRM has a positive impact on environmental awareness ($\beta = 0.513$, $p < 0.001$). Therefore, environmentally oriented HR practices enhance employees' awareness regarding the environment. These findings are consistent with previous literature [8, 9].

Secondly, green HRM significantly influences proactive pro-environmental performance ($\beta = 0.651$, $p < 0.001$). These findings therefore confirm hypothesis two. From these results, it can be argued that structured HRM enables employees to undertake environmental behaviours voluntarily. This finding is consistent with earlier literature [10, 11].

Moreover, a notable positive correlation exists between Green HRM and eco-friendly behaviour ($\beta = 0.516$, $p < 0.001$), thereby confirming hypothesis three (H3). It should be noted that organizational systems have once again gained relevance in promoting eco-friendly attitudes among employees [7, 13].

Environmental consciousness has a greatly notable impact on eco-friendly conduct ($\beta = 0.547$, $p < 0.001$). The findings therefore lend support to hypothesis four (H4). To put it differently, it can be observed that cognitive elements play a significant role in shaping employee attitudes and behaviours, according to the social cognitive theory of Bandura [5]. The results of the research align with those of multiple other recent studies [14].

Finally, it can be observed that there is a considerable association between environmental proactive performance and environmentally friendly behaviour ($\beta = 0.444$, $p < 0.001$). Therefore, hypothesis five (H5) is established through the study. This implies that environmentally friendly behaviour is demonstrated by employees who actively participate in environmental activities, an issue also supported by previous scholars [10, 16].

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Table 3.
Structural Model (Direct Effects).

	Relationship	β	t-value	p-value	Result
H1	GHRM → Environmental Awareness	0.513	8.681	0.000	Supported
H2	GHRM → PPEP	0.651	9.259	0.000	Supported
H3	GHRM → Eco-Friendly Behaviour	0.516	6.670	0.000	Supported
H4	Environmental Awareness → Eco-Friendly Behaviour	0.547	6.758	0.000	Supported
H5	PPEP → Eco-Friendly Behaviour	0.444	5.504	0.000	Supported

4.3. Results from Mediation Analysis

From the results of mediation analysis (see Table 4 below), it is reasonable to assume that environmental awareness is an important mediator between GHRM and environmentally friendly behaviour ($\beta = 0.195$, $p < 0.05$), thus validating the sixth hypothesis. In other words, the established strategy positively influences the cultivation of environmentally friendly behaviour among employees because of their increased awareness of environmental issues. As shown in the table, the results confirm the statements made by some other scholars [9].

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Moreover, the results of mediation analysis (see Table 4 below) show that proactive pro-environmental performance is also a mediator between the two variables mentioned above ($\beta = 0.256$, $p < 0.05$), thus proving H7. This means that the implementation of GHRM positively affects employees' proactive environment-related behaviour. The research findings agree with the results obtained by Afsar et al. [10].

Consequently, based on the analysis provided above, one may say that there is double mediation through the cognitive and behavioural pathways.

Table 4.
Mediation Effects.

Hypothesis	Path	β	t-value	p-value	Result
H6	GHRM → EA → EFB	0.195	2.068	0.040	Supported
H7	GHRM → PPEP → EFB	0.256	2.479	0.014	Supported

4.4. Moderation Analysis

The moderation analysis (see Table 5) clearly shows that servant leadership negatively moderates the relationship between Green HRM and environmental awareness ($\beta = -0.085$, $p < 0.001$). Thus, H8 is accepted, but this outcome appears counterintuitive since one could expect both variables to have a positive correlation. The possible explanation for this finding is that servant leadership and Green HRM substitute for each other in fostering employees' environmental awareness.

Nonetheless, servant leadership does not act as a moderator in the relationship between Green HRM and proactive pro-environmental behaviour ($\beta = -0.015$, $p > 0.05$), hence, H9 is not supported. Therefore, proactive actions related to the environment can be attributed to organizational systems but not leadership styles.

Table 5.
Moderation Effects.

Hypothesis	Interaction	β	t-value	p-value	Result
H8	GHRM × SL → EA	-0.085	5.830	0.000	Supported (negative)
H9	GHRM × SL → PPEP	-0.015	1.122	0.263	Not Supported

5. Discussion

The findings from this study provide substantial proof of the role of Green Human Resource Management in fostering environmental sustainability in organizations. According to Social Learning Theory, employees are inclined to adopt environmentally sustainable actions by practicing and reinforcing organizational behaviour [5]. The use of GHRM provides employees with an environment in which environmental values are embedded in their daily activities.

The significant correlation between Green HRM and environmental awareness clearly supports the idea that HR activities can be considered a cognitive stimulation factor in improving environmental awareness.

Moreover, the notable effect of GHRM on the green behaviours of firms demonstrates the importance of empowerment and engagement regarding sustainability. As such, empowered employees due to an organization's policies and systems will act proactively in their behaviour, as demonstrated by previous research [10, 11].

As per the findings regarding mediation, GHRM employs two mechanisms: cognitive and behavioural. This research adds value to the literature related to these two mechanisms, which have been discussed independently by other scholars.

Positive impact of environmental awareness on eco-friendly behaviour supports social cognitive theory, according to which cognition plays an important role in affecting human behaviour [5].

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On the other hand, proactive pro-environmental performance is crucial as well since it will contribute to initiative and consistency of pro-environmental activities. The finding is consistent with the hypothesis that proactive behaviours enhance sustainability performance [10]. A noteworthy theoretical contribution to the literature relates to moderating variables, as the negative effect of servant leadership moderates the relationship between two predictors. Thus, the negative role of servant leadership suggests the possibility of complementary influences of leadership and HRM practices on employees' environmental awareness. Despite some findings showing positive interaction between both factors [17], this study found that servant leadership played a negative role in the relationship between GHRM and environmental awareness. Concerning management practice, the research highlights the significance of adopting green HRM practices to advance sustainability. While both factors, leadership and HRM practices, are important for sustainability, the latter can be considered more reliable.

6. Conclusions

The present research examines the influence of GHRM on employees' environmentally friendly behaviour, utilizing two mediators, environmental awareness and proactive pro-environmental performance, and one moderator, servant leadership, to enhance understanding of their relationships. Findings indicate that GHRM can significantly influence eco-friendly behaviour both directly and indirectly through cognitive and behavioural mediations. Environmental awareness and proactive pro-environmental performance are recognized as complementary mediators in the link between GHRM and eco-friendly behaviour, indicating that employees might develop this behaviour influenced by both environmental awareness and proactive pro-environmental performance. Secondly, the study found that servant leadership negatively influences the effect of GHRM on environmental awareness, suggesting that a type of substitution may occur between servant leadership and GHRM regarding environmental awareness. Furthermore, servant leadership was identified as not being a significant moderating factor in the connection between GHRM and proactive behaviour.

7. Implications and Limitations

The current study extends the existing body of knowledge regarding Green HRM by showing how eco-friendly behaviour can be instilled via two processes: cognitive (environmental consciousness) and behavioural (proactive pro-environmental job performance). Moreover, this study has found an intriguing substitution effect of servant leadership. On a practical level, the results emphasize the necessity for adopting formalized approaches to Green HRM management, improving environmental consciousness, and promoting proactive employee participation, as the latter seems to be less reliable compared to HR systems in influencing sustainable behaviour. Nevertheless, the present study is not without limitations; the cross-sectional nature of data collection, one-industry sample, and lack of objective measurements represent major drawbacks. Hence, further studies need to employ longitudinal methodologies, explore other industries and countries, and include control variables to increase external validity and refine theory building.

Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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References

[1] D. W. S. Renwick, T. Redman, and S. Maguire, "Green human resource management: A review and research agenda," *International Journal of Management Reviews*, vol. 15, no. 1, pp. 1-14, 2013. https://doi.org/10.1111/j.1468-2370.2011.00328.x

[2] C. J. C. Jabbour and A. B. L. de Sousa Jabbour, "Green human resource management and green supply chain management: Linking two emerging agendas," *Journal of Cleaner Production*, vol. 112, pp. 1824-1833, 2016. https://doi.org/10.1016/j.jclepro.2015.01.052

[3] G. Tang, Y. Chen, Y. Jiang, P. Paillé, and J. Jia, "Green human resource management practices: Scale development and validity," *Asia Pacific Journal of Human Resources*, vol. 56, no. 1, pp. 31-55, 2018. https://doi.org/10.1111/1744-7941.12147

[4] A. Kim, Y. Kim, K. Han, S. E. Jackson, and R. E. Ployhart, "Multilevel influences on voluntary workplace green behavior: Individual differences, leader behavior, and coworker advocacy," *Journal of Management*, vol. 43, no. 5, pp. 1335-1358, 2017. https://doi.org/10.1177/0149206314547386

[5] A. Bandura, "Social foundations of thought and action," *Englewood Cliffs, NJ*, vol. 1986, no. 23-28, p. 2, 1986.

[6] N. T. Pham, Z. Tučková, and C. J. C. Jabbour, "Greening the hospitality industry: How do green human resource management practices influence organizational citizenship behavior in hotels? A mixed-methods study," *Tourism Management*, vol. 72, pp. 386-399, 2019. https://doi.org/10.1016/j.tourman.2018.12.008

[7] J. Y. Yong, M.-Y. Yusliza, T. Ramayah, and O. Fawehinmi, "Nexus between green intellectual capital and green human resource management," *Journal of Cleaner Production*, vol. 215, pp. 364-374, 2019. https://doi.org/10.1016/j.jclepro.2018.12.306

[8] M. Aboramadan, "The effect of green HRM on employee green behaviors in higher education: The mediating mechanism of green work engagement," *International Journal of Organizational Analysis*, vol. 30, no. 1, pp. 7-23, 2022. https://doi.org/10.1108/IJOA-05-2020-2190

[9] M. Mansour, "The influences of environmental awareness on green performance," *Global Journal of Environmental Science and Management*, vol. 9, no. 4, pp. 899-914, 2023. https://doi.org/10.22035/gjesm.2023.04.16

[10] B. Afsar, Y. Badir, and U. S. Kiani, "Linking spiritual leadership and employee pro-environmental behavior: The influence of workplace spirituality, intrinsic motivation, and environmental passion," *Journal of Environmental Psychology*, vol. 45, pp. 79-88, 2016. https://doi.org/10.1016/j.jenvp.2015.11.011

[11] N. A. Faraz, F. Ahmed, M. Ying, and S. A. Mehmood, "The interplay of green servant leadership, self-efficacy, and intrinsic motivation in predicting employees' pro-environmental behavior," *Corporate Social Responsibility and Environmental Management*, vol. 28, no. 4, pp. 1171-1184, 2021. https://doi.org/10.1002/csr.2115

[12] Y. Zhang, Y. Luo, X. Zhang, and J. Zhao, "How green human resource management can promote green employee behavior in China: A technology acceptance model perspective," *Sustainability*, vol. 11, no. 19, p. 5408, 2019. https://doi.org/10.3390/su11195408

[13] J. Dumont, J. Shen, and X. Deng, "Effects of green HRM practices on employee workplace green behavior: The role of psychological green climate and employee green values," *Human Resource Management*, vol. 56, no. 4, pp. 613-627, 2017. https://doi.org/10.1002/hrm.21792

[14] B. B. Saeed, B. Afsar, S. Hafeez, I. Khan, M. Tahir, and M. A. Afridi, "Promoting employee's proenvironmental behavior through green human resource management practices," *Corporate Social Responsibility and Environmental Management*, vol. 26, no. 2, pp. 424-438, 2019. https://doi.org/10.1002/csr.1694

[15] P. C. Stern, "New environmental theories: Toward a coherent theory of environmentally significant behavior," *Journal of Social Issues*, vol. 56, no. 3, pp. 407-424, 2000. https://doi.org/10.1111/0022-4537.00175

[16] O. Fawehinmi, M.-Y. Yusliza, W. Z. Wan Kasim, Z. Mohamad, and M. A. Sofian Abdul Halim, "Exploring the interplay of green human resource management, employee green behavior, and personal moral norms," *Sage Open*, vol. 10, no. 4, p. 2158244020982292, 2020. https://doi.org/10.1177/2158244020982292

[17] J. L. Robertson and J. Barling, "Greening organizations through leaders' influence on employees' pro-environmental behaviors," *Journal of Organizational Behavior*, vol. 34, no. 2, pp. 176-194, 2013. https://doi.org/10.1002/job.1820

[18] P. Paillé and J. H. Meija-Morelos, "Organisational support is not always enough to encourage employee environmental performance. The moderating role of exchange ideology," *Journal of Cleaner Production*, vol. 220, pp. 1061-1070, 2019. https://doi.org/10.1016/j.jclepro.2019.02.192

[19] J. F. Hair Jr, G. T. M. Hult, C. M. Ringle, M. Sarstedt, N. P. Danks, and S. Ray, *An introduction to structural equation modeling. In Partial least squares structural equation modeling (PLS-SEM) using R: a workbook*. Cham: Springer International Publishing, 2021.

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