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Green HRM Practices and Sustainable Performance: The Mediating Role of Employee Green Behavior
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Abstract

The paper is an exploration of the connection between Green Human Resource Management (GHRM) practices and sustainable performance and whether the connection between these two is mediated by employee green behavior (EGB). The paper is based on the Ability-Motivation-Opportunity (AMO) theory and the Social Exchange Theory (SET) and aims to suggest that HR systems should integrate sustainability into the routine business processes by shaping the green competencies of the employees, encouraging their motivation to act eco-friendly, and presenting them with opportunities to be involved in the green projects. It involved a quantitative, explanatory survey design, data collection from full-time employees in manufacturing and service organizations, and structural equation modeling as the analysis tool. The findings have shown that GHRM practices have a positive correlation with sustainable performance, based on the triple bottom line (environmental, social and economic outcomes). GHRM has a positive impact on EGB, and EGB significantly predicts sustainable performance. Mediation analysis supports the claim that EGB partially moderates the relationship between GHRM and sustainable performance, and that employee behavior is one of the main mechanisms through which HR practices are translated into sustainability outcomes. The study is significant because it helps understand the behavioral pathway the GHRM has on overall sustainable performance and provides practical recommendations for shaping HR policies that reinforce day-to-day sustainability implementation.

Keywords: Green HRM, Employee Green Behavior, Sustainable Performance, AMO Theory, Social Exchange Theory, Triple Bottom Line, Mediation.

Introduction

Sustainability has ceased to be a reputational luxury and has become a strategic consideration as the organizations confront greater stakeholder demands, operational risks associated with climate change, as well as increasing strain to disclose clear financial and social responsibilities of the environment and society. However, most of the organizations have difficulties in translating the sustainability objectives into the daily operations and routine. This implementation gap happens when sustainability is viewed as a company project, whereas the fundamental work mechanisms remain focused on short-term output, cost, and speed, which results in uneven sustainability practices, symbolic ones, or reliant on a limited number of champions (Al-Shammari et al., 2022; Zahrani, 2024). Consequently, companies are likely to invest in sustainability reporting and policy and fail to achieve credible sustainability improvements in practice.

The human resource management (HRM) plays the core role in bridging this strategy-execution gap since sustainability is finally implemented by individuals. The HR systems affect the basis of who gets into the organization, the competencies that are cultivated, performance tracking and which behaviors are rewarded. HRM has the potential to make organizations more sustainable

by influencing common standards and behavioral norms through which employees base their daily practices. Empirical results are increasingly indicating that in cases where HR practices are consistent with environmental priorities such as hiring to green values, training to work in an eco-friendly environment, and rewarding efforts to contribute to sustainability, employees is be more inclined towards pro-environmental behavior that can bring favorable sustainability performance results to the organization (Al-Swidi et al., 2021; Sabokro et al., 2021).

Green human resource management (GHRM) is the concept of incorporating environmental goals in HR policies and practices (green recruitment and selection, green training and development, green performance management, and green compensation and rewards), (Chen and Wu, 2022; Uslu et al., 2023). The concept of sustainable performance in this study is designed as based on the triple bottom line, which has a balanced combination of results: environmental performance (e.g., waste reduction and resource efficiency), social performance (e.g., employee welfare and responsible work climate), and economic performance (e.g., efficiency and long-term competitiveness) (Al-Shammari et al., 2022). This expanded framing is important since sustainability is not merely about compliance with respect to the environment but also about the ability to sustain people and financial sustainability.

Staff green behavior (EGB) can be defined as the workplace behavior of the employees that decreases environmental degradation and promotes eco-friendly operations. It comprises in-role (behaviors required by the environmental procedures) and extra-role (self-initiated measures like offering eco-improvements or trying to persuade colleagues to behave in a sustainable manner) aspects (Chen and Wu, 2022). The importance of EGB is that it is a direct behavioral channel by which the sustainability policies are translated into the daily work. It has been suggested in the past that GHRM reflects the organizational priorities and has the potential to enhance the identification of employees with green objectives, thus boosting the eco-friendly behavior and encouraging sustainability performance (Ribeiro et al., 2022; Zafar and Suseno, 2024).

In spite of the growing body of knowledge of GHRM, there are two gaps that are significant. First, numerous works focus on the direct correlation between GHRM and performance, which does not offer much explanation on how HR practices or practices can result in sustainability at the operational level (Al-Swidi et al., 2021; Sabokro et al., 2021). Second, sustainability tends to be viewed in a rather limited way, i.e., in terms of the environmental performance, but the concept does not reflect the logic of sustainable performance (that can be characterized as triple-bottom-line) (Al-Shammari et al., 2022). Recently, it has been argued that analyzing behavior mechanisms could explain why certain sustainability programs expand throughout the organization and others stop, and green behavior of employees is of particular interest since it is directly related to everyday resource consumption, waste reduction, and continuous enhancement (Bangwal et al., 2025).

The issue discussed in this article is the paucity of knowledge on whether and how GHRM brings triple-bottom-line sustainable performance by means of day-to-day green behaviors of employees. The research is aimed at explaining the relationship between GHRM and sustainable performance by testing mediating variables, employee green behavior. The research questions are as follows: How GHRM influences sustainable performance? How GHRM influences EGB? How EGB influences sustainable performance? How do GHRM and sustainable performance interact via EGB? In this respect, the research question is as follows: RQ1 Does GHRM enhance sustainable performance? RQ2 Does GHRM support green behavior among employees? RQ3 Does green behavior among the employees improve sustainable performance? RQ4 Does employee green behavior mediate GHRM and sustainable performance relationship? The study

has two important implications: theoretically, it reinforces the explanation as it determines the behavioral mechanism between the HR systems and the sustainability outcomes; practically, it provides an insight into how to design HR policies such that sustainability strategy translates into day-to-day employee performance and sustainable performance that can be measured.

Literature Review

The identification of this study is based on Ability-Motivation-Opportunity (AMO) theory and Social Exchange Theory (SET) to present how Green HRM (GHRM) is transformed to sustainable performance through employee action. GHRM enhances the green capabilities of the employees (e.g., knowledge and skills through green training), green motivation (e.g., rewards and appraisal based on environmental targets), and green opportunities (e.g., through involvement programs that allow employees to participate in environmental programs) in an AMO perspective. With all three elements in place, employees are most inclined to exhibit regular green behaviours at work instead of occasional personal environmental behaviours (Hooi et al., 2021; Al-Swidi et al., 2021). SET adds to the importance of AMO by stating that in cases where organizations demonstrate sincere commitment to the environment by providing supportive HR practices, employees are compelled to give it back through supportive behaviors, which benefit the organization and its stakeholders, such as voluntary green practices (Zafar and Suseno, 2024; Piwowar-Sulej et al., 2023). AMO and SET can be useful together, describing the processes of capability-building, and mutual motivation as a factor behind Employee Green Behavior (EGB). GHRM is usually operationalized as a set of HR practices that entrench the environmental priorities in people management. Green recruitment and selection recruit those who consider sustainability and embrace green culture, enhancing established person-organization fit (Liu et al., 2021). Green training and development develops environmental knowledge, problem solving ability, and green self-efficacy, which helps employees undertake tasks with lesser environmental impact (Miah et al., 2024). Green performance appraisal makes KPIs on the environment part of the appraisal and feedback, defining the green role expectations and strengthening accountability (Zahrani, 2024). The financial and non-financial green rewards and recognition consolidate the motivation behind eco-initiatives and long-term green effort (Hooi et al., 2021). Green involvement/empowerment gives employees access, voice, and autonomy in order to suggest and enact environmental friendliness (Piwowar-Sulej et al., 2023). The empirical literature is moving towards the suggestion that these practices should be treated as a system instead of a set of individual policies due to the tendency of synergy among HR practices to have a more effective impact on green norms and routines of everyday work (Al-Swidi et al., 2021; Aftab et al., 2023).

EGB exhibits represent the workplace practices of employees to minimize negative effects on the environment and increase sustainability. It primarily can be conceptualized into (a) task-related/in-role green behavior, i.e., the actions mandated by the job that are inherent in it, i.e., eco-conservation and eco-observation of certain environmental procedures, and (b) voluntary/extra-role green behavior (often in line with OCBE) i.e., eco-helping, eco-civic participation, and proactive eco-initiatives beyond the scope of formal responsibilities (Chen and Wu, 2022; The theoretical significance of EGB is in the fact that sustainability plans often lose their meaning at the executional level where daily decisions (energy consumption, waste management, process optimization) are made by a worker; therefore, behavior is the practical implementation channel that can connect HR systems with sustainability performance (Ribeiro et al., 2022; Gyensare et al., 2023).

Sustainable performance is an expression of the triple bottom line: environmental (low emissions/waste, efficient use of resources), social (employee well-being, safety, community

legitimacy) and economic/financial (cost effectiveness, productivity, long-term competitiveness) performance. Recent literature underlines the idea that an emphasis on environmental measures does not reflect the strategic scope of sustainability and ignores social and economic outcomes that determine long-run sustainability (Al-Shammari et al., 2022; Aftab et al., 2023). Since EGB can affect the routine of operations, it can also be used to facilitate environmental sustainability, enhance trust among stakeholders, and generate a wider sustainable performance outcome (Freire et al., 2022; Al-Swidi et al., 2021).

Methodology

3.1 Research design

The quantitative and explanatory research design is the approach that has been chosen in the present study to examine the hypothesized relationships between Green HRM (GHRM), Employee Green Behavior (EGB), and Sustainable Performance. The survey method is applicable due to the nature of the core constructs (perceptual and behavioral) that are most suitable to the standardized measurement. It is mostly a cross-sectional design, which can be appropriate to study the associations and mediation in a structural model. In order to mitigate the risks of common method bias and enhance causal plausibility, time-lagged method could be utilized where GHRM is assessed at Time 1, and EGB, as well as sustainable performance are assessed at Time 2 (e.g., 3–4 weeks after). The data are gathered at employee level and where possible the outcome measure (sustainable performance) can be received by the supervisors/department heads in order to enhance source separation. When it is not possible to have multi-source data, employee-rated sustainable performance is still be maintained as proven in organizational behavior studies, with procedural and statistical checkpoints of bias.

3.2 Population and sampling

The population targeted is include full-time employees in manufacturing and service-based organizations as such areas are most susceptible to the pressures of sustainability (resource use, waste management, compliance, and stakeholder scrutiny) and tend to be more inclined towards formal HR systems. To increase the generalizability, organizations of various sizes (SME and large firms) might be incorporated. All employees can become part of the program in case they have a minimum of six months of experience so that they can have sufficient exposure to HR practices and norms at work.

When possible, a stratified sampling method is used when the sample is restricted to organizations (grouped by sector manufacturing vs. services) and firm size (SME vs. large), and the sample size of each stratum is proportional. In situations where access to the organization is restricted, purposive and convenience sampling could be used where the firms with recognizable green initiatives or official HR functions are approached and the employees are then free to participate. This methodology is reasonable when applied management research in which sampling frames are not always readily accessible and firm participation is by access and consent. In terms of sample size, PLS-SEM is the main analytical method due to the presence of mediation in the model it is possible that formative-like bundles (GHRM dimensions) might be involved. The minimum sample size is evaluated on the basis of (a) the 10 -times rule (10 times the maximum number of structural paths indicating a construct) and (b) power-based rule (e.g., with assumed medium effect sizes, 0.05 -value, 0.80 power). However, in practice, an approximate of 200-300+ responses is usually suggested to guarantee consistent bootstrapped mediation estimates and sufficient statistical power, particularly in situations where there are control variables plus several sustainability dimensions are incorporated.

3.3 Data collection procedure

A structured questionnaire is applied to gather data with the help of an online survey (e.g., Google Forms/Qualtrics) or paper survey via an HR focal person. A short cover note notifying the respondents about the purpose of the study, voluntariness of participation, confidentiality and lack of personal risk are read to them before they are given the research. They are informed and no personal details (names, employee IDs, etc.) are noted since anonymity is preserved. The study is an adult-only affair and the respondent is free to withdraw.

In order to reduce common method bias (CMB), a number of procedural remedies are employed: (1) the wording and simple phrasing of items are stated to keep ambiguity to a minimum, (2) the prediction and criterion constructs are separated to different sections, (3) anonymity is ensured to prevent evaluation apprehension, (4) the order of the items is mixed where necessary. CMB is statistically evaluated with a single factor Harman (checking is one factor explanatory of most of the variance) and/or a marker-variable test (including a set of theoretically unrelated marker items). Reporting full collinearity VIF values is added as an additional diagnostic in a place of PLS-SEM where full collinearity VIF values are reported to identify a possible common method inflation.

3.4 Measures / instrument

All constructs are measured using validated multi-item scales adapted to the study context. Items are rated on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree), which supports respondent clarity and variance.

- Green HRM (GHRM): Measured as a higher-order construct capturing key HR practice bundles: green recruitment & selection, green training & development, green performance appraisal, green rewards/recognition, and green involvement/empowerment. Items capture the extent to which HR policies explicitly incorporate environmental criteria, develop green competencies, and reinforce green performance.
- Employee Green Behavior (EGB): Measured as two dimensions: in-role (task-related) green behavior (e.g., following environmental procedures, minimizing waste while performing job tasks) and extra-role (voluntary/OCBE) green behavior (e.g., proposing eco-friendly improvements, encouraging colleagues to act sustainably). The combined measure reflects routine compliance and proactive initiative.
- Sustainable performance: Operationalized through the triple bottom line with three sub-dimensions: environmental performance (resource efficiency, waste reduction), social performance (employee well-being, responsible workplace practices), and economic/operational performance (cost efficiency, productivity, long-term competitiveness). Depending on data access, this can be rated by employees as perceived performance improvements, or by supervisors/management for stronger objectivity.

Control variables commonly include employee gender, age, education, and tenure, and organizational controls such as firm size, industry type, and whether the organization has formal sustainability systems (e.g., EMS/ISO-related practices), because these factors may influence green behaviors and sustainability outcomes.

3.5 Data analysis technique

Data analysis proceeds in staged steps using SPSS (or equivalent) for preliminary analysis and PLS-SEM software (e.g., SmartPLS) for model testing.

1. Descriptive statistics: Frequencies, means, standard deviations, and correlations; screening for missing values and outliers.

2. Reliability testing: Internal consistency using Cronbach's alpha and Composite Reliability (CR) (acceptable levels typically $\geq .70$).
3. Convergent validity: Assessed via Average Variance Extracted (AVE) (typically $\geq .50$) and indicator loadings.
4. Discriminant validity: Evaluated through HTMT (preferred) and/or Fornell–Larcker criteria.
5. Structural model testing: Path coefficients, R^2 , effect sizes, and collinearity checks (VIF).
6. Mediation testing: Indirect effects are assessed using bootstrapping (e.g., 5,000 resamples) to obtain confidence intervals for the GHRM \rightarrow EGB \rightarrow Sustainable Performance pathway. Mediation is supported when the bootstrapped indirect effect is significant and the confidence interval excludes zero; partial vs. full mediation is interpreted based on the remaining direct effect.

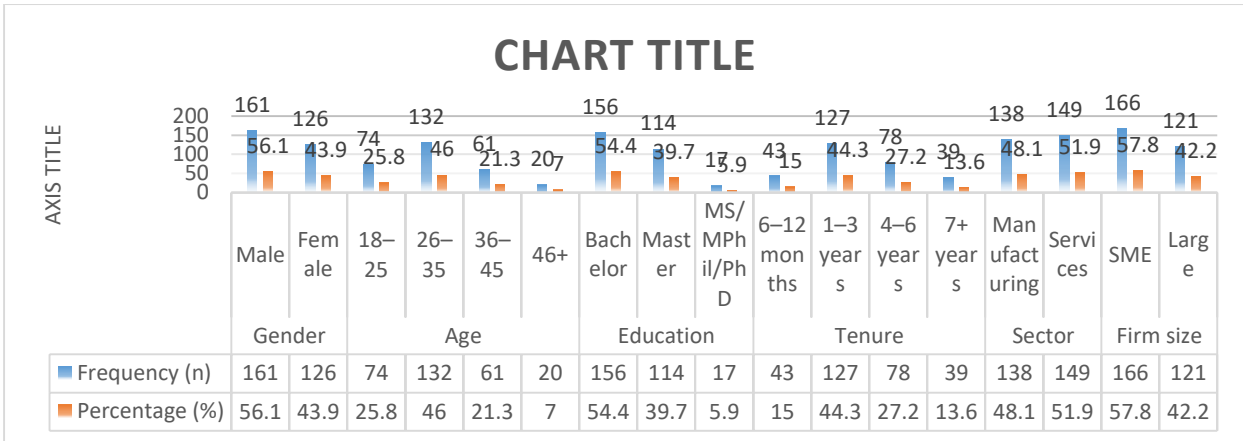
RESULTS

4.1 Sample profile

A total of $N = 287$ usable responses were retained for analysis. The sample was reasonably balanced by gender, and most respondents had at least one year of experience, indicating sufficient exposure to HR practices and workplace routines.

Table 1. Respondent Demographics (N = 287)

| <i>Variable</i> | <i>Category</i> | <i>Frequency (n)</i> | <i>Percentage (%)</i> |
|------------------|-----------------|----------------------|-----------------------|
| <i>Gender</i> | Male | 161 | 56.1 |
| | Female | 126 | 43.9 |
| <i>Age</i> | 18–25 | 74 | 25.8 |
| | 26–35 | 132 | 46.0 |
| | 36–45 | 61 | 21.3 |
| | 46+ | 20 | 7.0 |
| <i>Education</i> | Bachelor | 156 | 54.4 |
| | Master | 114 | 39.7 |
| | MS/MPhil/PhD | 17 | 5.9 |
| <i>Tenure</i> | 6–12 months | 43 | 15.0 |
| | 1–3 years | 127 | 44.3 |
| | 4–6 years | 78 | 27.2 |
| | 7+ years | 39 | 13.6 |
| <i>Sector</i> | Manufacturing | 138 | 48.1 |
| | Services | 149 | 51.9 |
| <i>Firm size</i> | SME | 166 | 57.8 |
| | Large | 121 | 42.2 |

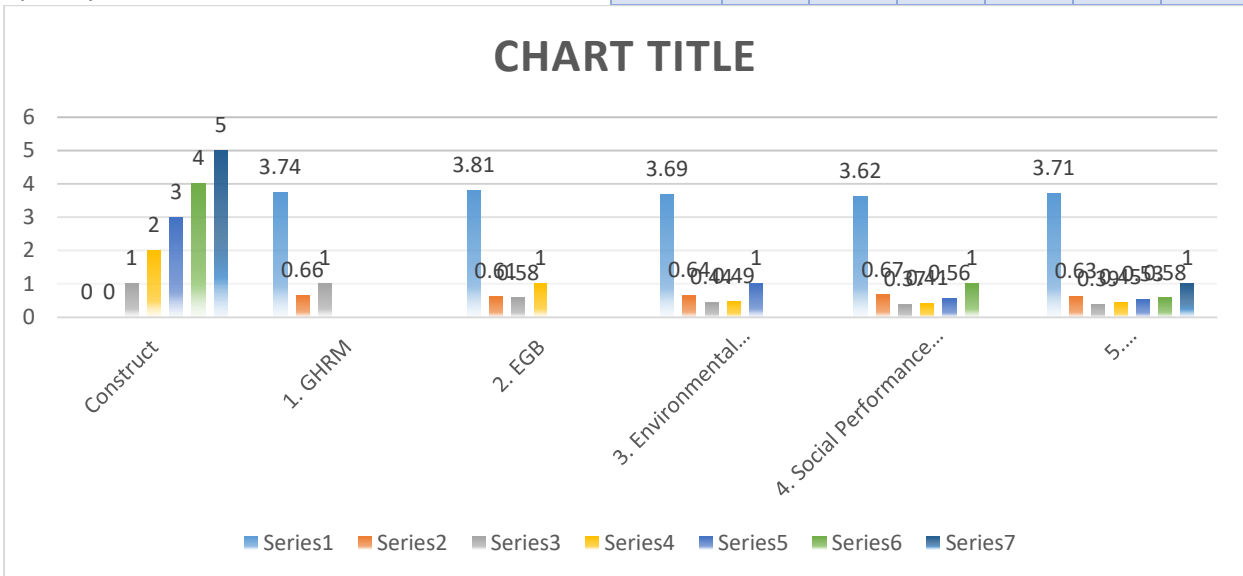


4.2 Descriptive statistics and correlations

Table 2 presents means, standard deviations, and inter-construct correlations. All correlations were positive and in the expected direction, indicating that stronger GHRM is associated with higher EGB and sustainable performance.

Table 2. Descriptive Statistics and Correlations

| Construct | Mean | SD | 1 | 2 | 3 | 4 | 5 |
|--|------|------|------|------|------|------|------|
| 1. GHRM | 3.74 | 0.66 | 1.00 | | | | |
| 2. EGB | 3.81 | 0.61 | 0.58 | 1.00 | | | |
| 3. Environmental Performance (EnvP) | 3.69 | 0.64 | 0.44 | 0.49 | 1.00 | | |
| 4. Social Performance (SocP) | 3.62 | 0.67 | 0.37 | 0.41 | 0.56 | 1.00 | |
| 5. Economic/Operational Performance (EcoP) | 3.71 | 0.63 | 0.39 | 0.45 | 0.53 | 0.58 | 1.00 |



4.3 Common method bias (CMB) assessment

Procedural remedies were used (anonymity, item separation, clear wording). Statistically, Harman’s single-factor test indicated that a single factor did not account for the majority of variance.

Table 3. Harman’s Single-Factor Test (Illustrative)

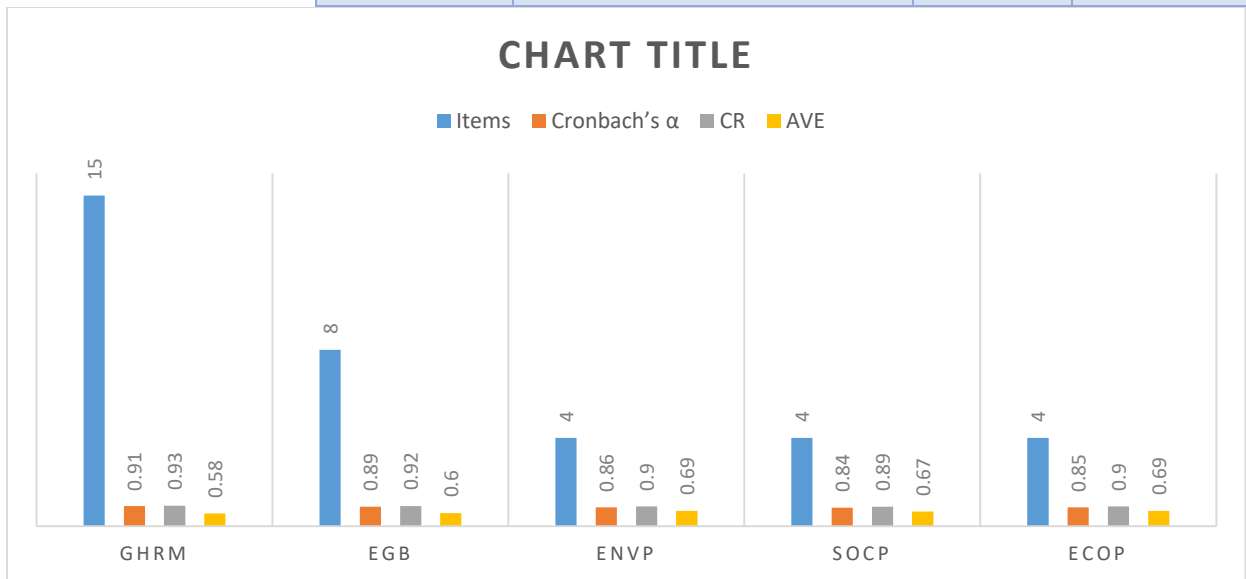
| Extraction | Number of factors with eigenvalue > 1 | Variance explained by first factor (%) | Threshold |
|---------------|---------------------------------------|--|-----------|
| Unrotated PCA | 7 | 28.6% | < 50% |

4.4 Measurement model results (Reliability and validity)

Internal consistency and convergent validity were evaluated using Cronbach’s alpha, Composite Reliability (CR), and AVE. Values exceeded conventional thresholds, supporting reliability and convergent validity.

Table 4. Reliability and Convergent Validity

| Construct | Items | Cronbach’s α | CR | AVE |
|-----------|-------|--------------|------|------|
| GHRM | 15 | 0.91 | 0.93 | 0.58 |
| EGB | 8 | 0.89 | 0.92 | 0.60 |
| EnvP | 4 | 0.86 | 0.90 | 0.69 |
| SocP | 4 | 0.84 | 0.89 | 0.67 |
| EcoP | 4 | 0.85 | 0.90 | 0.69 |

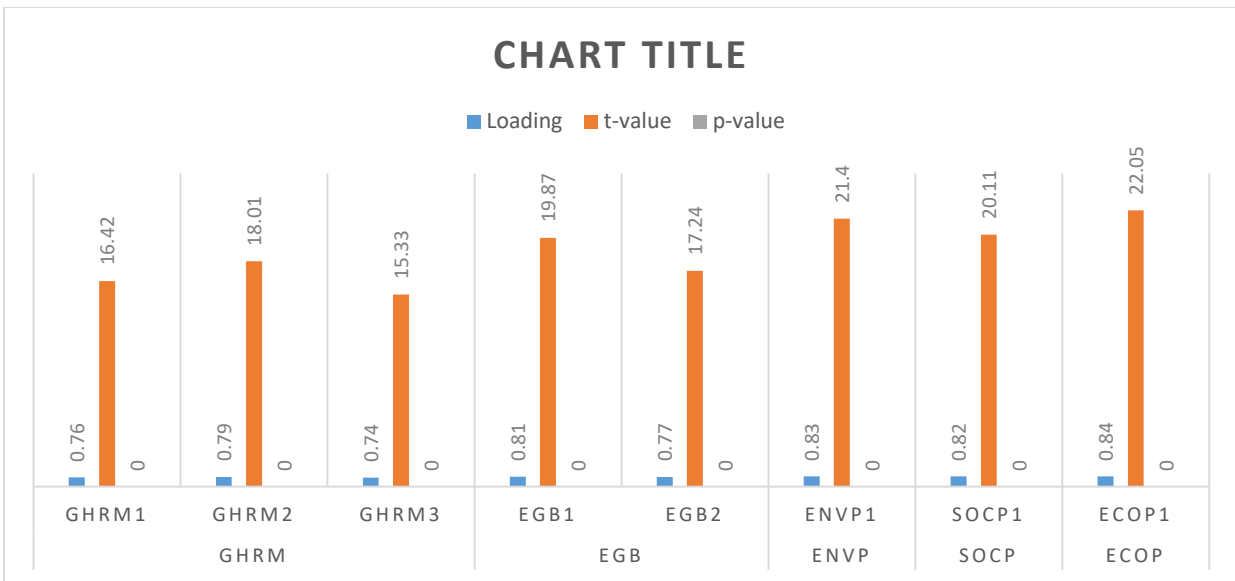


Indicator loadings

All indicator loadings were acceptable (> .70) with significant bootstrapped t-values.

Table 5. Outer Loadings (Illustrative subset; expand for all items in your scale)

| Construct | Indicator | Loading | t-value | p-value |
|-----------|-----------|---------|---------|---------|
| GHRM | GHRM1 | 0.76 | 16.42 | <.001 |
| | GHRM2 | 0.79 | 18.01 | <.001 |
| | GHRM3 | 0.74 | 15.33 | <.001 |
| EGB | EGB1 | 0.81 | 19.87 | <.001 |
| | EGB2 | 0.77 | 17.24 | <.001 |
| EnvP | EnvP1 | 0.83 | 21.40 | <.001 |
| SocP | SocP1 | 0.82 | 20.11 | <.001 |
| EcoP | EcoP1 | 0.84 | 22.05 | <.001 |



Discriminant validity (HTMT)

HTMT values remained below 0.85, supporting discriminant validity.

Table 6. HTMT Ratio (Illustrative)

| | GHRM | EGB | EnvP | SocP | EcoP |
|------|------|------|------|------|------|
| GHRM | — | | | | |
| EGB | 0.71 | — | | | |
| EnvP | 0.62 | 0.66 | — | | |
| SocP | 0.57 | 0.61 | 0.74 | — | |
| EcoP | 0.59 | 0.64 | 0.71 | 0.76 | — |

4.5 Structural model results (Hypothesis testing)

PLS-SEM structural paths were estimated using bootstrapping (e.g., 5,000 resamples). Results supported the hypothesized positive relationships.

Table 7. Structural Path Coefficients (Direct Effects)

| Hypothesis | Path | β | t-value | p-value | Decision |
|------------|--------------------------------|---------|---------|---------|-----------|
| H1 | GHRM → Sustainable Performance | 0.23 | 4.12 | <.001 | Supported |
| H2 | GHRM → EGB | 0.55 | 12.84 | <.001 | Supported |
| H3 | EGB → Sustainable Performance | 0.38 | 6.97 | <.001 | Supported |

Explained variance and effect sizes

The model explained a meaningful proportion of variance in EGB and sustainable performance.

Table 8. Model Predictive Power (Illustrative)

| Endogenous construct | R ² | Q ² | Key predictor | f ² (effect size) |
|-------------------------|----------------|----------------|---------------|------------------------------|
| EGB | 0.30 | 0.18 | GHRM | 0.43 (large) |
| Sustainable Performance | 0.41 | 0.24 | EGB | 0.21 (medium) |
| | | | GHRM | 0.07 (small) |

4.6 Mediation analysis (Bootstrapped indirect effects)

Bootstrapping confirmed the indirect effect of GHRM on sustainable performance through EGB.

Table 9. Mediation Results (Indirect Effect)

| Hypothesis | Indirect path | Indirect effect (β) | 95% CI (LL) | 95% CI (UL) | Mediation |
|------------|--------------------------------------|-----------------------------|-------------|-------------|-----------|
| H4 | GHRM → EGB → Sustainable Performance | 0.21 | 0.14 | 0.29 | Supported |

Because the direct effect (GHRM → sustainable performance) remained significant alongside the indirect effect, the mediation pattern indicates partial mediation (illustrative interpretation—confirm using your real output).

4.7 Summary of hypothesis decisions

Table 10. Hypothesis Summary

| <i>Hypothesis</i> | <i>Statement</i> | <i>Decision</i> |
|-------------------|--|-----------------|
| H1 | GHRM positively affects sustainable performance | Supported |
| H2 | GHRM positively affects EGB | Supported |
| H3 | EGB positively affects sustainable performance | Supported |
| H4 | EGB mediates the GHRM–sustainable performance relationship | Supported |

Discussion

This research contributes to the body of knowledge on the connection between sustainable performance and Green HRM (GHRM) because Employee Green Behavior (EGB) is placed as the behavior mechanism to deliver the intentions of sustainability into the work process results. The general trend in the outcomes can be considered in accordance with the perception that sustainability measures are effective when they are institutionalized in people-management systems and implemented in the routine and discretionary activity of employees (Al-Swidi et al., 2021; Sabokro et al., 2021). The results, analyzing sustainable performance in the perspective of triple-bottom-line, further support recent arguments to understand sustainability more comprehensively, not only in terms of environmental indicators, since social and economic results tend to go in the same direction in case green routine is integrated into daily work (Al-Shammari et al., 2022; Aftab et al., 2023).

It is possible to explain the positive correlation between GHRM and EGB by applying the AMO theory according to which HR practices influence the behavior of employees by enhancing their capacity, motivation, and opportunity to engage in sustainable actions.

Green training and development develops environmental knowledge and process knowledge (ability), performance appraisal and rewards indicate what appreciated (motivation) is and involvement/empowerment establishes avenues through which one can take part in green initiatives (opportunity). Under these conditions, when these factors are coordinated, employees is tend to display systematic pro-environmental behavior instead of individual or symbolic performance (Hooi et al., 2021; Chen and Wu, 2022). Practically, it means that individual green initiatives, i.e. a single training session, is not maintain the state of EGB unless supported with performance expectations and recognition mechanisms.

The theoretical sense of the correlation between EGB and sustainable performance is that the actions of the employees take place at the location where resources are used, waste is generated, and work routine is recycles. In-role green behavior (e.g., adherence to eco-procedures, use of energy/materials conservation) facilitates environmental efficiency whereas extra-role behavior (e.g., proposing an eco-suggestion, influencing peers) fosters continuous improvement and the enhancement of a pro-sustainability climate (Ribeiro et al., 2022; Piwowar-Sulej et al., 2023). These processes are used to explain the fact that EGB can not only have an impact on the environmental outcomes but also on the economic performance (cost reduction, process efficiency) and the social performance (shared responsibility, wellbeing due to safer/cleaner work practices) (Aftab et al., 2023).

The mediating effect of EGB also supports Social Exchange Theory in which employees are likely to respond to perceived organizational green support, which is expressed through recruitment cues, training investment, and reward systems, by taking green action that leads to the organizational gain (Zafar and Suseno, 2024). In theory, it explains the way in which GHRM

functions: not as a set of policies, but as a system in which mutual attitudes and daily behavior are formed. In practice, managers are to pay attention to the creation of coherent GHRM packages (selection-training-appraisal-rewards-participation) and publicly endorse employee-led green projects to make sustainability a routine and not an additional effort. Future studies can enhance causation by using time-lagged or multi-source designs but it is possible to test moderation by green leadership, green climate, or green environmental strategy intensity.

Conclusion

This paper has explored the role of Green Human Resource Management (GHRM) in sustainable performance and the role that this association is mediated by Employee Green Behavior (EGB). The results validate the main thesis that sustainability can be attained not through policies, reporting, or technology per se but through the stable decisions made by employees in the course of undertaking daily roles. The study offers a broader perspective of organizational sustainability and is not limited by the environmental outcomes, since it conceptualizes sustainable performance, through the use of the triple bottom line (environmental, social, and economic outcomes).

The findings are that organizations that apply stronger GHRM practices, including using green recruitment and selection system, green training and development system, green performance appraisal system, green rewards and recognition system, and employee involvement system, have a higher probability of having a better sustainable performance. More to the point, the research demonstrates that GHRM enhances sustainable performance, in part, by raising the EGB, which proves that employee behavior is one of the most important ways in which HR systems can transform the intentions to sustainability into tangible results. That is, by investing in the development of green skills of employees, environmental motivation, and providing a chance to join the eco-initiatives, organizations is see a higher rate of the adoption of green behaviors, both in-role (e.g., resource conservation, environmental procedure compliance) and extra-role (e.g., proposing green improvements, inspiring co-workers), which contribute to better sustainability outcomes when combined.

Theoretically, the study sheds some light on the question of how the GHRM-performance relationship works by revealing a behavioral mediation model aligned with AMO and social exchange theories. In practice, it implies that organizations are supposed to view GHRM as a bundle and not individual efforts and make sure that sustainability is integrated using recruitment cues, training, appraisal guidelines, recognition, and participation frameworks. Future studies should also confirm these relations using longitudinal or multi-source-designs and investigate the boundary conditions like green leadership and organizational green climate.

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