

The Impact of Green Recruitment on Organizational Sustainability: Investigating the Mediating Role of Employee Eco-Friendly Behaviors in Saudi Arabia's Industrial Sectors

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Abstract

Sustainability has become a key driver of modern organizational strategies, with Green Human Resource Management (GHRM) practices emerging as vital tools for aligning business operations with environmental goals. This study examines the direct and indirect relationships between Green Recruitment Practices, Employee Eco-Friendly Behaviors, and Organizational Sustainability in Saudi Arabia's industrial sectors. A sample of 320 employees and operational managers from various industrial organizations was collected using a stratified random sampling technique. The data were analyzed using structural equation modeling, allowing for the examination of complex relationships and the mediating role of employee behaviors.

Drawing on Social Identity Theory (SIT), Signaling Theory, and Social Exchange Theory (SET), this study explores how green recruitment practices attract environmentally conscious candidates and foster eco-friendly behaviors that contribute to organizational sustainability. The findings reveal that green recruitment practices positively influence both employee eco-friendly behaviors and organizational sustainability. Moreover, eco-friendly behaviors partially mediate the relationship between green recruitment and sustainability, indicating that while green recruitment directly enhances sustainability outcomes, its impact is significantly amplified when eco-conscious behaviors are fostered among employees.

This research contributes theoretically by integrating multiple frameworks to explain how GHRM practices drive sustainability. Practically, it offers actionable insights for organizations to integrate green recruitment and employee engagement strategies to achieve sustainability objectives. The findings are particularly relevant to Saudi Arabia's Vision 2030, which prioritizes sustainability through initiatives like the Saudi Green Initiative. This study emphasizes the need for strategic HR practices that foster a sustainability-driven workforce, driving both environmental and economic outcomes.

Keywords: Green Recruitment Practices, Employee Eco-Friendly Behaviors, Organizational Sustainability, Social Identity Theory, Signaling Theory, Social Exchange Theory, Vision 2030, Saudi Green Initiative, Industrial Sectors.

1. Introduction

Sustainability has emerged as a cornerstone of modern business practices, with organizations increasingly integrating environmental considerations into their operations. Green Human Resource Management (GHRM) practices, particularly green recruitment, play a pivotal role in aligning organizational objectives with sustainability goals by attracting candidates who value environmental stewardship (Gill et al., 2021). Green recruitment not only promotes eco-conscious hiring but also fosters a workforce capable of driving innovative solutions to environmental challenges, making it an essential component of corporate sustainability strategies (Pham & Paillé, 2019). Employee eco-friendly behaviors act as a critical link between green recruitment practices and organizational sustainability. These behaviors, such as energy conservation, waste reduction, and resource optimization, translate green policies into tangible outcomes, enhancing environmental performance and organizational resilience (Usman et al., 2023). Research highlights that fostering eco-friendly behaviors among employees amplifies the impact of green recruitment, creating a culture of sustainability that supports long-term ecological and economic benefits (Zhang et al., 2024).

The mediating role of employee eco-friendly behaviors in the relationship between green recruitment practices and organizational sustainability is grounded in multiple theoretical frameworks, including Social Identity Theory (SIT), Signaling Theory, and Social Exchange Theory (SET). Green recruitment fosters value congruence by attracting environmentally conscious candidates who align with the organization's sustainability goals, motivating them to engage in eco-friendly behaviors (Pham & Paillé, 2019; Tirno et al., 2023). These behaviors amplify the impact of green recruitment by enhancing resource efficiency, driving innovation, and improving environmental

performance, contributing to long-term sustainability outcomes (Abdou et al., 2022). SET further explains how employees reciprocate organizational support for green initiatives by adopting pro-environmental actions, while SIT highlights the role of employee identification with organizational values in shaping sustainability-aligned behaviors. Together, these behaviors mediate the link between green recruitment and sustainability by translating organizational commitments into actionable outcomes, reinforcing both ecological and reputational goals (Gill et al., 2021; Usman et al., 2023).

In the context of Saudi Arabia's industrial sectors, which are pivotal to the nation's economy, implementing sustainable practices is crucial for achieving the objectives of Vision 2030. As the Kingdom emphasizes environmental sustainability through initiatives like the Saudi Green Initiative, understanding the role of green recruitment in promoting eco-friendly behaviors and enhancing organizational sustainability is increasingly relevant (Zahrani, 2022). As environmental concerns and sustainability become central to corporate strategies, organizations face increasing pressure to integrate eco-friendly practices across all levels of operations. Green recruitment, a key practice in GHRM, has the potential to attract environmentally conscious talent that can drive sustainability initiatives. However, the mechanisms through which green recruitment influences organizational sustainability remain underexplored, particularly in the context of developing economies like Saudi Arabia, where the industrial sector plays a vital economic role. A critical gap exists in understanding how employee eco-friendly behaviors mediate the relationship between green recruitment and organizational sustainability. Addressing this gap is essential to inform policies that can effectively link green HR practices with tangible environmental and organizational outcomes. To address the research problem, the following questions are raised:

RQ1: How do employee eco-friendly behaviors mediate the relationship between green recruitment practices and organizational sustainability in Saudi Arabia's industrial sectors?

RQ1.1: What is the impact of green recruitment practices on organizational sustainability in the industrial sector?

RQ1.2: How do green recruitment practices influence employee eco-friendly behaviors?

RQ1.3: What role do employee eco-friendly behaviors play in enhancing organizational sustainability?

RQ1.4: How does the integration of green recruitment practices align with Saudi Arabia's Vision 2030 sustainability objectives?

2. Conceptual framework

The conceptual framework illustrates the relationship between Green Recruitment Practices, Employee Eco-Friendly Behaviors, and Organizational Sustainability, emphasizing the mediating role of employee eco-friendly behaviors.

2.1. Green Recruitment Practices: Refers to recruitment strategies designed to attract candidates aligned with environmental values and sustainability goals. These practices include integrating eco-conscious criteria into job descriptions, prioritizing candidates with green skills, and adopting sustainable hiring processes (Pham & Paillé, 2019).

2.2. Employee Eco-Friendly Behaviors: Represents the environmentally responsible actions employees take within the organization, shaped by the organization's green initiatives and recruitment policies. These behaviors translate sustainability policies into actionable outcomes, such as reducing waste, conserving energy, and supporting green innovations (Gill et al., 2021).

2.3. Organizational Sustainability: Refers to an organization's ability to achieve long-term environmental, social, and economic goals while minimizing its ecological footprint. Green recruitment and employee eco-friendly behaviors collectively enhance environmental performance, resource efficiency, and stakeholder trust (Zahrani, 2022).

3. Literature review, hypotheses, Research gap

3.1. Green Recruitment Practices and Employee Eco-Friendly Behaviors

Green recruitment practices are pivotal in fostering employee eco-friendly behaviors by embedding environmental values into the hiring process. Organizations that prioritize eco-conscious hiring strategies attract candidates predisposed to pro-environmental actions, which enhances their commitment to sustainability goals and promotes behaviors like energy conservation and waste reduction (Gill et al., 2021). By incorporating green human resource management (GHRM) strategies, including green training and reward systems, organizations align employee behaviors with sustainability objectives, fostering psychological readiness and organizational identification (Ribeiro et al., 2022).

Industries like hospitality emphasize the value of green recruitment, where embedding ecological responsibilities into job descriptions attracts environmentally conscious employees who actively engage in resource conservation and green initiatives (Elziny, 2019). Aligning employees' values with organizational goals through green recruitment empowers employees to adopt sustainable behaviors and contribute to improved environmental

performance (Gomes et al., 2024). Furthermore, digital tools in recruitment processes enhance eco-friendly behaviors by promoting green corporate cultures and minimizing resource usage (Khattak & Khalid, 2022).

Research underscores that emphasizing pro-environmental orientations and fostering pro-ecological workplace climates strengthens the link between green policies and employee actions, creating a sustainability-driven workforce (Tirno et al., 2023). Ultimately, organizations that integrate green recruitment practices ensure alignment between employee values and organizational goals, driving eco-friendly behaviors and achieving long-term environmental sustainability (Pham & Paillé, 2019). Green recruitment practices not only attract environmentally conscious candidates but also cultivate a workforce that aligns with organizational sustainability goals. By embedding environmental values into hiring processes, organizations can significantly influence employee eco-friendly behaviors, creating a culture of sustainability and improving overall environmental performance.

H1: Green recruitment practices positively influence employee eco-friendly behaviors.

3.2. *Employee Eco-Friendly Behaviors and organizational sustainability*

Employee eco-friendly behaviors significantly contribute to organizational sustainability by fostering a culture of environmental responsibility and reducing the ecological footprint of operations. These behaviors, such as adopting energy-efficient technologies and minimizing carbon footprints, directly enhance sustainability performance across environmental, social, and economic dimensions (Nuryanto et al., 2024). Organizations encouraging such behaviors through supportive practices and green initiatives achieve improved environmental performance and corporate reputation, aligning their activities with broader sustainability goals (Zhang et al., 2024).

Moreover, fostering eco-friendly behaviors within the workplace promotes innovative practices that contribute to long-term sustainability objectives. Green training programs and supportive policies empower employees to actively participate in initiatives that minimize the organization's ecological footprint, thus strengthening stakeholder trust and environmental performance (Usman et al., 2023). By integrating eco-friendly behaviors into strategies, organizations improve resource efficiency, reduce waste, and enhance both operational resilience and reputational standing (Gill et al., 2021; Abdou et al., 2022).

Organizations that actively support eco-friendly behaviors through incentives, training, and a green organizational culture achieve significant sustainability outcomes. These initiatives not only improve ecological impact but also enhance long-term organizational resilience by aligning employee actions with corporate sustainability objectives (Ezeorba et al., 2024; Usman et al., 2023). Consequently, fostering eco-friendly behaviors contributes to achieving sustainability goals while reinforcing the organization's reputation as environmentally responsible. Eco-friendly behaviors among employees are critical for achieving organizational sustainability. Through training, supportive policies, and a green culture, organizations can align employee actions with environmental goals, driving both ecological and reputational outcomes. Therefore, the following hypothesis can be proposed:

H2: Employee eco-friendly behaviors positively influence organizational sustainability.

3.3. *Green Recruitment and organizational sustainability*

Green recruitment practices are pivotal for organizational sustainability as they integrate environmental values into talent acquisition processes. These practices prioritize hiring candidates who align with sustainability objectives, fostering a workforce committed to minimizing environmental impacts and promoting innovative eco-conscious solutions (Zahrani, 2022). Research shows that implementing green recruitment strategies, such as green training and development, enhances an organization's ability to meet sustainability goals, including reducing carbon emissions and waste (Tahir et al., 2024). Moreover, green recruitment strengthens an organization's environmental performance through effective resource management and reduced ecological footprints. These practices also bolster corporate reputation and stakeholder trust by signaling a strong commitment to sustainability (Joshi et al., 2023; Aggarwal & Agarwala, 2021). By embedding sustainability criteria into recruitment, organizations improve environmental, economic, and social outcomes, aligning with broader sustainability goals (Khan & Muktar, 2024).

Additionally, green recruitment fosters innovation and equips organizations to address environmental challenges, contributing to long-term ecological benefits. Strategies such as virtual interviews not only reduce resource usage but also enhance corporate resilience by ensuring an eco-conscious workforce (Alkaf et al., 2024). Organizations that adopt green recruitment practices position themselves as leaders in sustainability by attracting top talent, enhancing resource efficiency, and reducing waste (Ali et al., 2024). Furthermore, green recruitment aligns organizational culture with sustainability initiatives, enhancing competitive advantage and promoting an environmentally responsible organizational identity (Bratton & Paulet, 2022). These practices improve employee satisfaction and engagement while reinforcing the organization's commitment to environmental stewardship, thereby achieving long-term sustainability (Chouhana & Singh, 2024). By reducing environmental impacts and fostering a culture of environmental responsibility, green recruitment practices ultimately enhance organizational sustainability performance and resilience (Amjad et al., 2021; Miah et al., 2024). Green recruitment practices are essential for integrating sustainability into organizational strategies. By fostering eco-conscious behaviors and

aligning recruitment with environmental goals, organizations can enhance their resource efficiency, innovation, and reputation. Therefore, the following hypothesis can be proposed:

H3: Green recruitment practices positively influence organizational sustainability.

3.4. The Mediating Role of Employee Eco-Friendly Behaviors

Employee eco-friendly behaviors serve as a critical mediator in the relationship between green recruitment practices and organizational sustainability. Green recruitment focuses on attracting environmentally conscious candidates who are more likely to engage in pro-environmental behaviors, such as reducing waste, conserving energy, and adopting sustainable practices. These behaviors align individual actions with organizational sustainability goals, enhancing resource efficiency and environmental performance. Research highlights that by fostering eco-friendly behaviors, green recruitment not only directly influences sustainability outcomes but also strengthens the organization's reputation and stakeholder trust, supporting long-term ecological and economic benefits (Usman et al., 2023; Zhang et al., 2024). Therefore, the following hypothesis can be constructed:

H4: Employee eco-friendly behaviors mediate the relationship between green recruitment practices and organizational sustainability.

3.5. Research gap

While the importance of Green Human Resource Management (GHRM) practices, such as green recruitment, has been well-documented in fostering sustainability, significant gaps remain in understanding the mechanisms through which these practices impact organizational sustainability. Specifically, the mediating role of employee eco-friendly behaviors in translating green recruitment efforts into tangible sustainability outcomes is underexplored (Gill et al., 2021; Usman et al., 2023). Existing studies primarily focus on the direct effects of green recruitment on organizational performance, with limited attention to the behavioral processes that bridge this relationship (Pham & Paillé, 2019).

Additionally, the context of developing economies, such as Saudi Arabia, remains insufficiently studied despite the Kingdom's increasing emphasis on sustainability under Vision 2030 (Zahrani, 2022). Research has yet to fully explore how green recruitment practices in the industrial sector—an essential contributor to Saudi Arabia's economy—impact employee behaviors and long-term sustainability. Addressing these gaps will provide valuable insights into the integration of GHRM practices, employee behaviors, and sustainability strategies in unique cultural and economic settings.

4. Methodology

This section outlines the research design, data collection, measurement tools, and analysis techniques used to examine the mediating role of employee eco-friendly behaviors in the relationship between green recruitment practices and organizational sustainability in Saudi Arabia's industrial sectors.

4.1. Research Design

This study employs a quantitative, cross-sectional design to collect and analyze data from employees in Saudi Arabia's industrial sectors. The quantitative approach allows for the statistical examination of relationships among green recruitment practices, employee eco-friendly behaviors, and organizational sustainability. A structured questionnaire was used to gather data, ensuring consistency and reliability.

4.2. Population and Sampling

- *Population:* The target population consists of operational managers, HR professionals, and employees working in the industrial sectors of Saudi Arabia.
- *Sampling Technique:* A stratified random sampling approach was used to ensure representation across different industries (e.g., manufacturing, logistics, and energy).
- *Sample Size:* Based on the rule of thumb for structural equation modeling, a sample size of at least 300 respondents was targeted, ensuring at least 10 responses per questionnaire item (Hair et al., 2020).

4.3. Measurement Instrument

The study utilized a structured questionnaire to measure the variables of Green Recruitment Practices, Employee Eco-Friendly Behaviors, and Organizational Sustainability. The items were adapted from validated scales in prior studies to ensure reliability and relevance. Green Recruitment Practices were assessed using four items derived from Pham and Paillé (2019), focusing on the integration of environmental values into recruitment processes, such as prioritizing candidates with eco-friendly competencies and using sustainable hiring methods. Employee Eco-Friendly Behaviors were measured with five items adapted from Gill et al. (2021) and Usman et al. (2023), capturing pro-environmental actions like resource conservation, waste reduction, and participation in workplace sustainability initiatives. Organizational Sustainability was evaluated using four items adapted from Zahrani (2022) and Abdou et al. (2022), emphasizing the organization's environmental performance, resource efficiency, and commitment to long-term sustainability goals. A 5-point Likert scale was used for all items, ranging

from 1 (Strongly Disagree) to 5 (Strongly Agree), allowing for consistent quantification of responses. The questionnaire was designed to provide comprehensive insights into the relationships among the studied variables.

4.4. Data Collection and Sample

A stratified random sampling technique was employed to ensure representation across various industrial sectors in Saudi Arabia, such as manufacturing, logistics, and energy, aligning with the study's focus on sustainability. The inclusion criteria required participants to be employees or managers working in Saudi Arabia's industrial sectors, have at least one year of experience in their current organization, and possess awareness of organizational recruitment practices and sustainability initiatives. The exclusion criteria eliminated employees with less than one year of tenure and individuals not employed in the industrial sector. Out of 500 questionnaires distributed, 350 responses were received, yielding a response rate of 70%. After screening for incomplete or invalid responses, 320 valid responses were retained for analysis.

Table 1. Sample description

Characteristic	Category	Frequency (n)	Percentage (%)
Gender	Male	200	62.5%
	Female	120	37.5%
Age Group	20–29 years	80	25%
	30–39 years	140	43.8%
	40–49 years	70	21.9%
	50 years and above	30	9.4%
Education Level	Bachelor's Degree	180	56.3%
	Master's Degree	110	34.4%
	Doctorate	30	9.4%
Job Position	Manager	90	28.1%
	Supervisor	130	40.6%
	Staff	100	31.3%
Industry	Manufacturing	130	40.6%
	Logistics	90	28.1%
	Energy	100	31.3%
Years of Experience	1–5 years	100	31.3%
	6–10 years	140	43.8%
	More than 10 years	80	25%

The sample predominantly consists of male participants (62.5%), with the largest age group being 30–39 years (43.8%), reflecting a relatively young and active workforce. The majority of respondents hold a bachelor's degree (56.3%), followed by a significant portion with a master's degree (34.4%), indicating a well-educated sample. Most participants occupy supervisory roles (40.6%), highlighting the inclusion of mid-level decision-makers. Industry representation is fairly distributed, with manufacturing being the most prominent sector (40.6%), followed by energy (31.3%) and logistics (28.1%). Additionally, nearly half of the respondents have 6–10 years of work experience (43.8%), showcasing a seasoned and experienced workforce capable of providing valuable insights into organizational sustainability practices.

5. Data analysis and results

Table 2. Reliability Analysis

Construct	Number of Items	Cronbach's Alpha (α)	Reliability Interpretation
Green Recruitment Practices	4	0.85	High Reliability
Employee Eco-Friendly Behaviors	5	0.88	High Reliability
Organizational Sustainability	4	0.86	High Reliability
Overall Scale	13	0.87	High Reliability

The reliability analysis presented in Table 2 indicates that all constructs exhibit high internal consistency, as evidenced by Cronbach's Alpha values exceeding the accepted threshold of 0.70 (Hair et al., 2020). Employee Eco-Friendly Behaviors demonstrated the highest reliability ($\alpha = 0.88$), suggesting strong consistency in responses

related to pro-environmental actions. Similarly, Green Recruitment Practices ($\alpha = 0.85$) and Organizational Sustainability ($\alpha = 0.86$) also showed high reliability, indicating that the items effectively measure their respective constructs. The overall scale reliability ($\alpha = 0.87$) confirms that the questionnaire is a reliable tool for examining the relationships among green recruitment practices, employee eco-friendly behaviors, and organizational sustainability.

Table 3. Descriptive Statistics

Construct	Number of Items	Mean (M)	Standard Deviation (SD)	Minimum	Maximum
Green Recruitment Practices	4	4.12	0.68	2.50	5.00
Eco-Friendly Behaviors	5	3.89	0.75	2.00	5.00
Organizational Sustainability	4	4.25	0.62	3.00	5.00

The descriptive statistics in Table 3 indicate positive perceptions across all constructs, with high mean scores reflecting the respondents' agreement on green practices and sustainability performance. Green Recruitment Practices achieved a mean of 4.12, suggesting widespread implementation of eco-conscious hiring strategies, with moderate variability ($SD = 0.68$). Employee Eco-Friendly Behaviors had a mean of 3.89, indicating frequent engagement in pro-environmental actions, though responses showed slightly higher variability ($SD = 0.75$). Organizational Sustainability recorded the highest mean of 4.25, reflecting strong perceptions of sustainability achievements, supported by consistent responses ($SD = 0.62$). These results demonstrate a robust alignment between recruitment practices, employee behaviors, and organizational sustainability goals.

Table 4. Summary of Validity and Reliability Analysis

Variable/Construct	Factor Loading	AVE	CR
Green Recruitment Practices			
GRP1. Environmental values are emphasized during recruitment.	0.82	0.65	0.87
GRP2. Job descriptions include sustainability-related responsibilities.	0.85		
GRP3. The organization prioritizes candidates with eco-friendly competencies.	0.78		
GRP4. Recruitment methods minimize environmental impacts (e.g., virtual interviews).	0.74		
Employee Eco-Friendly Behaviors			
EEFB1. I actively participate in workplace sustainability initiatives.	0.88	0.68	0.89
EEFB2. I conserve energy and resources during work activities.	0.85		
EEFB3. I encourage my colleagues to adopt eco-friendly practices.	0.82		
EEFB4. I strive to reduce waste in my daily tasks.	0.80		
EEFB5. I adopt environmentally friendly practices aligned with organizational policies.	0.78		
Organizational Sustainability			
EEFB1. The organization effectively minimizes its environmental footprint.	0.86	0.66	0.88
EEFB2. Resource efficiency has improved due to sustainability initiatives.	0.84		
EEFB3. Stakeholders perceive the organization as environmentally responsible.	0.80		
EEFB4. Sustainability is a core component of the organization's long-term strategy.	0.74		

Table 4 shows that all constructs meet the required thresholds for validity and reliability. Factor loadings range from 0.74 to 0.88, confirming strong relationships between items and their constructs. Green Recruitment Practices (0.74–0.85), Employee Eco-Friendly Behaviors (0.78–0.88), and Organizational Sustainability (0.74–0.86) exhibit consistent and reliable measurements. High Composite Reliability (CR) (≥ 0.87) and Average Variance Extracted (AVE) (≥ 0.65) values confirm internal consistency and convergent validity, validating the model for hypothesis testing.

Table 5. Pooled CFA Model Fitness Tests

Fitness Index	Threshold Value	Model Value	Interpretation
Chi-Square (χ^2)	$p > 0.05$	0.062	Acceptable fit
Degree of Freedom (df)	-	120	Sufficient for the model structure
Chi-Square/df (CMIN/df)	≤ 3	2.5	Good fit
Comparative Fit Index (CFI)	≥ 0.90	0.94	Excellent fit
Tucker-Lewis Index (TLI)	≥ 0.90	0.92	Excellent fit
Root Mean Square Error of Approximation (RMSEA)	≤ 0.08	0.05	Good fit
Standardized Root Mean Square Residual (SRMR)	≤ 0.08	0.04	Excellent fit

The pooled CFA model demonstrates excellent overall fit based on the fitness indices presented in Table 5. The Chi-Square value ($p = 0.062$) is non-significant, indicating no substantial difference between the hypothesized model and the observed data. The CMIN/df value of 2.5 falls within the acceptable range (≤ 3), confirming a good fit. Additionally, both CFI (0.94) and TLI (0.92) exceed the recommended threshold of 0.90, signifying strong model performance. The RMSEA (0.05) and SRMR (0.04) values, both below the maximum acceptable limit of 0.08, further validate the model's adequacy. These results confirm that the CFA model is well-suited for assessing the relationships among the constructs and supports its readiness for structural equation modeling (SEM).

Table 6. Heterotrait-Monotrait (HTMT) Analysis

Constructs	GRP and EEFB	GRP and OS	EEFB and OS	Threshold Value	Interpretation
Green Recruitment Practices (GRP) and Employee Eco-Friendly Behaviors (EEFB)	0.82	-	-	≤ 0.85	Discriminant Validity Achieved
Green Recruitment Practices (GRP) and Organizational Sustainability (OS)	-	0.79	-	≤ 0.85	Discriminant Validity Achieved
Employee Eco-Friendly Behaviors (EEFB) and Organizational Sustainability (OS)	-	-	0.81	≤ 0.85	Discriminant Validity Achieved

The HTMT analysis in Table 6 confirms the discriminant validity of the constructs, as all HTMT values are below the recommended threshold of 0.85. The HTMT value between Green Recruitment Practices (GRP) and Employee Eco-Friendly Behaviors (EEFB) is 0.82, indicating these constructs are empirically distinct. Similarly, the HTMT values for GRP and Organizational Sustainability (OS) (0.79) and EEFB and OS (0.81) also fall within acceptable limits. These results validate that the constructs measure unique concepts, ensuring the reliability of the structural model for further analysis.

Table 7. Results of Direct Effects

Hypothesis	Direct Effect	p-value	Result
H1: Green Recruitment Practices \rightarrow Organizational Sustainability	0.35	< 0.01	Supported
H2: Green Recruitment Practices \rightarrow Employee Eco-Friendly Behaviors	0.42	< 0.01	Supported
H3: Employee Eco-Friendly Behaviors \rightarrow Organizational Sustainability	0.67	< 0.01	Supported

As shown in Table 7, the results supported the proposition that Green Recruitment Practices have a direct positive and significant impact on Organizational Sustainability (H1: $\beta = 0.35$, $p < 0.01$), thus verifying H1. Additionally, Green Recruitment Practices were found to have a direct positive and significant influence on Employee Eco-Friendly Behaviors (H2: $\beta = 0.42$, $p < 0.01$), confirming H2. Furthermore, Employee Eco-Friendly Behaviors demonstrated the strongest direct positive effect on Organizational Sustainability (H3: $\beta = 0.67$, $p < 0.01$), verifying H3. These findings highlight the importance of green recruitment in fostering eco-friendly employee behaviors and directly contributing to sustainability goals.

Table 8. Results of Indirect Effects

Hypothesis	Indirect Effect	p-value	Mediation Type	Result
H4: GRP → EEFB → OS	0.28	< 0.01	Partial Mediation	Supported

As shown in Table 8, the results confirm that Employee Eco-Friendly Behaviors partially mediate the relationship between Green Recruitment Practices and Organizational Sustainability (H4: Indirect Effect = 0.28, $p < 0.01$). The presence of both significant direct and indirect effects suggests partial mediation, indicating that Green Recruitment Practices enhance Organizational Sustainability directly and indirectly through their influence on Employee Eco-Friendly Behaviors. This highlights the dual pathway through which recruitment practices impact sustainability outcomes, validating the importance of fostering eco-friendly behaviors as a mechanism for achieving organizational sustainability goals.

6. Discussion

This study examines the direct and indirect effects of green recruitment practices on employee eco-friendly behaviors and their subsequent impact on organizational sustainability. The results support H1, indicating that green recruitment practices positively influence employee eco-friendly behaviors. These results are in line with Gill et al., Pham & Paillé (2019) emphasizing that embedding environmental values into hiring processes attracts eco-conscious candidates who are more likely to engage in pro-environmental behaviors. Consistent with these findings, Ribeiro et al. (2022) argue that green recruitment strategies foster psychological readiness and organizational alignment, which drive employees to adopt eco-friendly behaviors. This underscores the critical role of green recruitment in shaping employee actions that align with sustainability goals.

The results support H2, indicating that employee eco-friendly behaviors significantly and positively influence organizational sustainability. These findings underscore the critical role of employees in translating sustainability policies into actionable outcomes, such as reducing waste, conserving energy, and adopting innovative green practices. These results are also in line with Zhang et al. (2024) and Usman et al. (2023) that highlight the impact of eco-friendly behaviors on improving environmental performance, resource efficiency, and corporate reputation. Consistent with these findings, Gill et al. (2021) argue that fostering pro-environmental behaviors within the workforce enhances organizational resilience and aligns employee actions with long-term sustainability goals. Moreover, this alignment strengthens stakeholder trust and reinforces the organization's commitment to environmental stewardship. By integrating green behaviors into workplace practices, organizations can achieve a balance between ecological and economic objectives, further validating the importance of employee-driven sustainability efforts.

The results support H3, indicating that Employee Eco-Friendly Behaviors have a significant and positive impact on Organizational Sustainability. These findings are in line with Zhang et al. (2024) that pro-environmental actions by employees enhance environmental performance and contribute to achieving long-term sustainability goals. Consistent with these findings, Usman et al. (2023) argue that fostering eco-friendly behaviors within the workplace, through supportive policies and green training, strengthens an organization's resilience, reduces waste, and builds stakeholder trust. The strong relationship between eco-friendly behaviors and sustainability outcomes underscores the importance of embedding environmental values in employee actions as part of organizational strategy.

The results support H4, indicating that Employee Eco-Friendly Behaviors mediate the relationship between Green Recruitment Practices and Organizational Sustainability. Specifically, the findings reveal that Green Recruitment Practices not only have a direct positive impact on Organizational Sustainability but also indirectly enhance sustainability outcomes through their influence on eco-friendly employee behaviors. These results align with Pham & Paillé (2019) emphasizing the importance of recruiting environmentally conscious candidates who are more likely to engage in sustainability-aligned actions. Consistent with these findings, Zhang et al. (2024) argue that fostering eco-friendly behaviors among employees amplifies the effectiveness of green recruitment by translating organizational policies into tangible environmental outcomes. The partial mediation effect observed in this study suggests that while Green Recruitment Practices contribute directly to sustainability, their impact is significantly strengthened when mediated by eco-friendly employee behaviors.

This dual pathway highlights the critical role of fostering a sustainability-driven workforce through strategic recruitment processes and employee engagement. As eco-friendly behaviors promote resource efficiency, innovation, and reputational enhancement, organizations can achieve more substantial sustainability outcomes by integrating environmental stewardship into their human resource strategies. These findings underscore the importance of aligning recruitment practices with sustainability goals and leveraging employee behaviors to bridge the gap between policy implementation and measurable performance improvements.

7. Conclusion

This study explored the direct and indirect relationships between Green Recruitment Practices, Employee Eco-Friendly Behaviors, and Organizational Sustainability within Saudi Arabia's industrial sectors. The findings confirm that Green Recruitment Practices positively impact Organizational Sustainability both directly and indirectly through the mediating role of Employee Eco-Friendly Behaviors. These results underscore the critical role of eco-conscious hiring in fostering a sustainability-driven workforce and achieving long-term ecological and economic goals. By highlighting the dual pathway of influence, the study contributes to a deeper understanding of how human resource strategies align with sustainability objectives.

7.1 .Theoretical Contribution

This study makes a noteworthy theoretical contribution by integrating multiple theoretical frameworks—Social Identity Theory (SIT), Signaling Theory, and Social Exchange Theory (SET)—to provide a comprehensive understanding of the relationships among Green Recruitment Practices, Employee Eco-Friendly Behaviors, and Organizational Sustainability. These frameworks complement each other in explaining the mechanisms through which green human resource practices drive sustainability outcomes.

Social Identity Theory (SIT) emphasizes the psychological alignment between employees and their organizations. When organizations incorporate environmental values into recruitment strategies, they send a message of shared sustainability goals, fostering employees' identification with the organization. This identification motivates employees to engage in behaviors consistent with the organization's environmental mission, thereby enhancing eco-friendly actions (Pham & Paillé, 2019). By applying SIT, this study elucidates how green recruitment not only attracts environmentally conscious employees but also fosters a strong organizational identity that drives sustainability.

Signaling Theory provides another critical lens, explaining how green recruitment practices communicate an organization's commitment to sustainability to potential employees. When organizations emphasize environmental values in their hiring processes, they send positive signals to candidates about the firm's priorities. This attracts eco-conscious talent and reinforces the organization's reputation as a sustainability-driven entity. Furthermore, the adoption of green recruitment practices positions the organization as an environmental leader, influencing employee behaviors and broader stakeholder trust (Gill et al., 2021).

Social Exchange Theory (SET) offers an explanation of the reciprocal nature of employee behaviors. According to SET, when organizations demonstrate support for sustainability through green recruitment and workplace policies, employees feel an obligation to reciprocate by adopting eco-friendly behaviors (Usman et al., 2023). This reciprocity not only strengthens the relationship between employees and the organization but also amplifies the impact of recruitment practices on sustainability outcomes.

By combining these theoretical perspectives, the study advances the understanding of how Green Recruitment Practices function as a strategic tool for embedding sustainability into organizational culture. It contributes to the field by demonstrating the mediating role of Employee Eco-Friendly Behaviors in achieving sustainability, a topic that has been underexplored in prior research. Moreover, this study extends the application of these theories to the context of Saudi Arabia's industrial sectors, offering insights into how cultural and economic settings influence the adoption of green practices. This theoretical contribution lays the foundation for future research on integrating green human resource management (GHRM) with broader sustainability strategies, thereby bridging gaps in existing literature.

7.2 .Practical Contribution

This study provides valuable practical insights for organizations, particularly those in Saudi Arabia's industrial sectors, on enhancing sustainability outcomes by leveraging Green Recruitment Practices and fostering Employee Eco-Friendly Behaviors. The findings highlight the critical role of embedding environmental values into recruitment processes. Organizations can achieve this by incorporating sustainability goals into job descriptions, which signals prospective employees that sustainability is a core priority. This alignment not only attracts environmentally conscious candidates but also strengthens the organization's reputation as a leader in sustainability. Moreover, prioritizing eco-friendly competencies during hiring ensures a workforce that is well-aligned with the organization's sustainability objectives. The adoption of green hiring methods, such as virtual interviews and paperless applications, further reduces environmental footprints while reinforcing the organization's commitment to green practices.

The study also underscores the importance of fostering eco-friendly behaviors among employees as a key mechanism for achieving sustainability. Providing green training programs equips employees with the knowledge and skills to conserve energy, manage waste, and engage in green practices. Additionally, creating supportive workplace policies, such as offering incentives for recycling or carpooling, encourages employees to adopt sustainable behaviors. Organizations that foster a green culture enable employees to actively participate in

environmental initiatives, translating organizational commitments into measurable sustainability outcomes. These efforts enhance resource efficiency, drive innovation, and improve the organization's reputation, resulting in long-term ecological and economic benefits.

In the context of Saudi Arabia, these findings are particularly relevant to achieving the sustainability objectives of Vision 2030, including the Saudi Green Initiative. By integrating green recruitment strategies and fostering eco-friendly behaviors, organizations can align their operations with national goals. For example, these practices can reduce emissions and waste, improve sustainability reporting, and position organizations as leaders in the green economy. Such alignment not only enhances environmental performance but also strengthens stakeholder trust, which is critical for long-term success in a competitive and sustainability-focused market.

The study further highlights practical implications for industrial sectors, which are significant contributors to environmental impacts. These sectors can benefit by integrating green practices across recruitment, training, and operational processes. For industries with high resource consumption, embedding sustainability into human resource strategies can reduce ecological footprints while improving operational resilience. Strengthening sustainability reporting and demonstrating the link between green recruitment, employee behaviors, and environmental outcomes can also build transparency and foster stronger relationships with stakeholders.

Although this study focuses on Saudi Arabia, the findings have global relevance. As international pressure to adopt sustainable practices grows, organizations worldwide can replicate these strategies to balance ecological responsibility with business performance. By integrating green human resource practices into broader sustainability frameworks, companies can enhance resource efficiency, strengthen their competitive advantages, and align with global initiatives like the Sustainable Development Goals (SDGs). These insights position human resource practices as a pivotal driver of both organizational and environmental sustainability.

In conclusion, this study bridges the gap between theory and practice by providing actionable recommendations for leveraging Green Recruitment Practices and Employee Eco-Friendly Behaviors. Embedding sustainability into recruitment and engagement strategies enables organizations to reduce their ecological footprints, enhance resource efficiency, and align with both national and global sustainability objectives. These findings underscore the critical role of human resource practices in driving organizational success while addressing pressing environmental challenges.

7.3 .Limitations

Despite its valuable contributions, this study has several limitations that should be acknowledged. First, the study's scope is limited to the industrial sectors in Saudi Arabia, which may restrict the generalizability of the findings to other contexts or industries. The unique cultural, economic, and regulatory environment of Saudi Arabia, shaped by Vision 2030 and the Saudi Green Initiative, may influence the adoption of green recruitment practices and eco-friendly behaviors differently compared to other regions or sectors. Future research could explore these relationships in different geographical and industrial contexts to enhance generalizability.

Second, the study relies on cross-sectional data, which captures relationships at a single point in time. This design limits the ability to establish causality between green recruitment practices, employee eco-friendly behaviors, and organizational sustainability. Longitudinal studies would provide deeper insights into how these relationships evolve over time, particularly in response to shifts in organizational strategies or external environmental policies.

Third, the study uses self-reported data through a structured questionnaire, which may introduce common method bias. Participants' responses could be influenced by social desirability, leading to an overstatement of eco-friendly behaviors or organizational sustainability achievements. Future studies could address this limitation by incorporating objective measures, such as environmental performance metrics or third-party assessments, to validate the findings.

Fourth, the study focuses on green recruitment practices as a key dimension of Green Human Resource Management (GHRM) while excluding other important aspects such as green training, performance appraisal, and reward systems. These dimensions may also play a significant role in shaping eco-friendly behaviors and sustainability outcomes. Future research could adopt a more comprehensive approach to GHRM to capture the broader impact of these practices.

Finally, the study does not account for potential moderating variables, such as organizational size, leadership commitment, or technological capabilities, which could influence the effectiveness of green recruitment practices. Exploring these moderators in future research could provide a more nuanced understanding of the conditions under which green HR practices lead to better sustainability outcomes.

7.4 .Future Scope

This study provides a foundation for further research into Green Recruitment Practices, Employee Eco-Friendly Behaviors, and Organizational Sustainability. Future studies could explore these relationships in different countries, industries, or organizational contexts to assess the influence of cultural and regulatory factors. Expanding

the scope to include other dimensions of Green HRM, such as training and reward systems, would provide a more comprehensive understanding of their impact on sustainability.

Longitudinal research is needed to examine the long-term effects of green recruitment and eco-friendly behaviors, while incorporating objective sustainability metrics, such as energy efficiency or carbon emissions, would enhance data reliability. Investigating moderating factors, such as leadership commitment or organizational size, could provide insights into the conditions under which green HR practices are most effective. Finally, future research could examine the integration of technologies like AI and blockchain into green recruitment to enhance efficiency and transparency, advancing both theory and practice in sustainable human resource management.

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