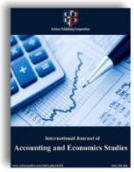
International Journal of Accounting and Economics Studies, 12 (5) (2025) 583-595

International Journal of Accounting and Economics Studies

Website: www.sciencepubco.com/index.php/IJAES
https://doi.org/10.14419/vsdfbe88
Research paper



Green Human Resource Management and Organizational Citizenship Behavior: The Influence of Eco-Friendly Lifestyle and Organizational Commitment

U. Bala Aiswarya [1] *, Kalaivani Manivel [2]

[1] Research scholar, Faculty of Management, SRM Institute of Science and Technology, Vadapalani campus, Chennai, Tamil Nadu, India – 600026
[2] Associate professor, Faculty of Management, SRM Institute of Science and Technology, Vadapalani campus, Chennai, Tamil Nadu, India – 600026
**Corresponding author E-mail: bu6068@srmist.edu.in*

Received: July 24, 2025, Accepted: September 4, 2025, Published: September 14, 2025

Abstract

In response to growing global concerns about environmental sustainability, both governments and corporations have increasingly prioritized eco-conscious initiatives, prompting multinational companies to embed sustainable practices within their strategic frameworks. This study explores the connection between Green Human Resource Management (GHRM) and employees' Organizational Citizenship Behavior for the Environment (OCBE), with a particular focus on the mediating role of green lifestyle and the moderating role of organizational commitment. Data were collected from 407 working professionals across four key sectors—information technology, manufacturing, banking, and healthcare—applying the Attitude–Behavior–Context (ABC) framework alongside Social Exchange Theory. Structural Equation Modeling (SEM) was performed using AMOS to analyze the relationships. The findings reveal that GHRM has a significant positive effect on OCBE. Furthermore, while a green lifestyle serves as a partial mediator in this relationship, organizational commitment was found to moderate the strength of this effect. The results provide actionable insights for practitioners, suggesting that integrating environmental principles into HR practices can promote voluntary eco-friendly behavior among employees and reinforce broader corporate sustainability efforts.

Keywords: *Eco-Friendly Lifestyle; Green Human Resource Management; Organizational Citizenship Behavior for the Environment; Organizational Commitment; Workplace Sustainability.*

1. Introduction

In the current era of intense global competition, organizations are increasingly expected to demonstrate not only operational excellence and stakeholder value creation but also a strong commitment to environmental sustainability. Recent shifts in global temperatures, primarily driven by intensified economic development, have contributed to severe ecological consequences (Alvarado & Toledo, 2017). Environmental scholars have stressed the urgent need for structured and comprehensive approaches to mitigate environmental degradation (Malik et al., 2021). Human-induced factors such as high levels of carbon emissions, rampant deforestation, oceanic plastic pollution, and accelerating biodiversity loss continue to cause widespread ecological harm (Mtutu & Thondhlana, 2016). Acknowledging these critical challenges, the United Nations introduced the Sustainable Development Goals (SDGs) in 2019, emphasizing the importance of balancing economic advancement with environmental preservation. Consequently, climate change has gained significant attention among business leaders and policymakers who aim to safeguard the planet's natural systems (Sarmad et al., 2023). In response, many organizations are now incorporating sustainability measures into their core operations (Yong et al., 2020). A growing consensus among academics, environmental advocates, and regulators identifies unsustainable consumption patterns and lifestyles as key contributors to ecological crises such as rising temperatures, freshwater shortages, and habitat degradation (Rockström et al., 2009). Therefore, it has become imperative for organizations to adopt strategic interventions like GHRM, which can substantially improve their environmental performance (Kim et al., 2019).

GHRM is increasingly recognized as a pivotal strategy for advancing sustainability goals within organizations. It encompasses a set of human resource practices that are designed to foster environmental stewardship (Kramar, 2014). The core objective of GHRM is to develop an environmentally conscious workforce by embedding sustainability considerations into critical HR functions such as recruitment, training, promotion, and performance appraisal (Anwar et al., 2020). Beyond policy-making, GHRM plays a vital role in encouraging environmentally responsible conduct among employees (Renwick et al., 2013). When employees voluntarily undertake eco-friendly actions without external pressure, their behavior is categorized as Organizational Citizenship Behavior for the Environment (OCBE) (Boiral & Paillé, 2012). OCBE extends the traditional concept of Organizational Citizenship Behavior (OCB) by emphasizing unprompted, eco-focused

behaviors within the workplace (Paillé et al., 2013). According to Daily et al. (2009), OCBE includes voluntary actions aimed at promoting environmental well-being. Its key dimensions include eco-civic engagement (actively participating in green initiatives at work), eco-helping (supporting colleagues in adopting sustainable practices), and eco-initiatives (generating and applying new eco-friendly solutions) (Boiral & Paillé, 2012).

Recent studies such as Zaidi & Azmi (2024) indicate that both GHRM and OCBE have become increasingly prominent topics in sustainability-related research. While past studies have examined various predictors of OCBE (Islam et al., 2020)There remains a lack of comprehensive understanding regarding how GHRM influences OCBE both directly and indirectly. Scholars have called for more in-depth investigations to address this gap (Pinzone et al., 2019). Although existing literature has identified several intervening variables in the GHRM–OCBE relationship, such as mediators and moderators (Hameed et al., 2020; Lu et al., 2023; Malik et al., 2021; Muisyo et al., 2022)Limited attention has been given to the roles of green lifestyle and organizational commitment. Some studies suggest that individuals who engage in environmentally responsible behaviors in their personal lives are more likely to demonstrate similar tendencies at work (Dowruang & Akkawanitcha, 2019). Given that employees' green lifestyle choices can be influenced by GHRM, exploring lifestyle as a mediating variable becomes essential. Furthermore, since GHRM initiatives are primarily designed to shape employee attitudes (Li et al., 2019)Analyzing organizational commitment as a moderating factor may provide deeper insights into how these practices translate into voluntary environmental behaviors. Although there is a growing global interest in this area, the relationship between GHRM and OCBE remains underexplored in the Indian context, where both environmental concerns and economic growth are rising concurrently (Hameed et al., 2020). Hence, this study investigates how GHRM affects OCBE, considering the mediating effect of green lifestyle and the moderating influence of organizational commitment, with a particular focus on Indian organizations.

2. Underpinning Theories and Hypotheses Development

This research is built around four primary constructs: (i) Green Human Resource Management as the exogenous variable, (ii) Organizational Citizenship Behavior for the Environment as the endogenous variable, (iii) Green Lifestyle serving as the mediating variable, and (iv) Organizational Commitment functioning as the moderating variable. The conceptual framework linking these constructs draws from two foundational theories, Social Exchange Theory (Blau, 1964) and the Attitude–Behavior–Context (ABC) Theory (Guagnano et al., 1995), as illustrated in Figure 1. Social Exchange Theory provides a lens through which the relationship between GHRM and OCBE can be interpreted. As articulated by Emerson (1972)This theory suggests that employees are more likely to engage in pro-environmental behaviors voluntarily when they perceive organizational support for such initiatives. When a firm demonstrates its dedication to environmental sustainability through targeted green training programs, performance assessments tied to environmental goals, and rewards for eco-friendly actions, employees are more inclined to respond with discretionary behaviors aligned with environmental values, commonly referred to as OCBE (Aboramadan, 2022).

The study also applies the ABC theory to explain how individual attitudes and environmental contexts jointly shape eco-friendly behaviors. According to this model, pro-environmental actions are influenced by both internal predispositions and the surrounding circumstances (Umar & Javeed, 2023). A green lifestyle, in this context, reflects a deeply held set of environmental values and norms that guide sustainable personal and professional behaviors (Genoveva & Syahrivar, 2020; Meng et al., 2022). While this internal commitment can encourage OCBE, it often requires reinforcement through external factors. Prior research suggests that internal motivation alone may not consistently result in sustained green behavior without supportive environmental or organizational conditions (Maseeh et al., 2022; Sadiq et al., 2023). In this setting, it plays a pivotal role as a moderating variable. Employees with strong emotional attachment to their organization are more likely to translate personal environmental values into workplace actions that align with the firm's sustainability mission. Therefore, within the ABC framework, a green lifestyle contributes to environmentally responsible workplace behavior, and this influence is significantly enhanced when employees feel deeply committed to their organization. This interaction strengthens the explanatory power of the proposed model.

2.1. Green HRM and OCBE

In today's context of growing environmental concerns, organizational goals are increasingly being aligned with environmental priorities (Renwick et al., 2013). Businesses are now expected to actively engage with ecological challenges and address issues contributing to environmental degradation. As a result, environmental management has become an integral part of organizational strategy and operations (Iftikar et al., 2022). The concept of GHRM is based on the notion that corporate strategies, when integrated with HR functions, can effectively respond to ecological challenges (Yue et al., 2023). GHRM involves the deliberate incorporation of environmental goals into traditional HRM practices (Jabbour, 2013). This includes practices such as recruiting individuals who value sustainability, providing environmental training, and implementing performance appraisal systems that recognize and reward eco-friendly behavior (Renwick et al., 2013).

The literature consistently links GHRM with environmentally responsible employee behaviors (Shafaei et al., 2020). For example, Veerasamy et al. (2024) found that green recruitment, along with environmentally focused performance evaluation and appraisal systems, positively influences employees' pro-environmental conduct. Similarly, Li et al. (2023) reported that GHRM practices promote employees' in-role green behavior—those actions that fall within the scope of formal job responsibilities. In addition to influencing in-role behaviors, GHRM has also been associated with extra-role green behaviors—voluntary actions that go beyond formal job duties and contribute to environmental sustainability (Islam et al., 2021). While in-role behaviors are embedded in employees' official responsibilities, extra-role behaviors, such as suggesting eco-friendly initiatives or helping colleagues act sustainably, are discretionary (Paillé & Boiral, 2013).

Of particular interest in recent research is OCBE, which refers to voluntary employee actions aimed at improving environmental outcomes within the organization (Boiral & Paillé, 2012). The effectiveness of green initiatives, including GHRM, heavily depends on employee attitudes toward OCBE (Priyankara et al., 2018). Thus, HR professionals face the challenge of cultivating and sustaining an environmentally conscious workforce that demonstrates OCBE. Integrating environmental management efforts with GHRM practices while fostering extra-role green behavior is viewed as a promising approach for achieving long-term ecological sustainability (Fawehinmi et al., 2020).

Recent studies in emerging economies provide further support for these links. For instance, Ishaque et al. (2025) found that GHRM enhanced organizational citizenship behavior for the environment in the Brazilian manufacturing industry through green work engagement, while Gilal et al. (2025) showed that psychological contract fulfillment mediated the GHRM–OCBE relationship in the Pakistani garment sector. Similarly, Dwumah et al. (2025) reported that in Ghanaian firms, employee engagement mediated the effect of GHRM on OCBE, with personality traits acting as moderators. Extending this evidence, You & Kee (2024) demonstrated that GHRM fostered green creativity

in Chinese service firms, and Zulfikarijah et al. (2023) highlighted its role in promoting environmental performance in Indonesia's Real estate company. Together, these findings indicate that recent research is broadening the scope of GHRM beyond compliance, linking it to innovation, engagement, and well-being. Against this backdrop, the Indian context warrants special attention. India represents one of the fastest-growing economies with a highly diverse industrial base, ranging from traditional manufacturing to globally integrated IT services. Unlike many other emerging economies, India has legally mandated corporate social responsibility (CSR) spending, a vibrant digital transformation agenda, and pressing sustainability challenges due to its scale, population, and environmental pressures (Bhattacharjee et al., 2025; Dubey, 2024). By examining four diverse sectors, such as information technology, manufacturing, banking, and healthcare, this study not only provides a broader cross-industry perspective but also highlights how India's unique regulatory, institutional, and socio-economic environment shapes the GHRM–OCBE relationship in ways that may differ from other emerging economies. Based on this review of prior studies, the following hypothesis is proposed:

H1: Green Human Resource Management has a positive and significant impact on Organizational Citizenship Behavior for the Environment.

2.2. Mediating Role of Green Lifestyle

A green lifestyle includes individuals' environmentally conscious attitudes, behaviors, and practices incorporated into their daily routines (Genoveva & Syahrivar, 2020). It allows employees to create and employ sustainable, eco-friendly products and resources (Bombiak, 2019). Promoting an eco-friendly lifestyle in the workplace enables employees to attain a sustainable work-life balance, hence strengthening environmentally responsible behaviors in both professional and personal spheres (Pham et al., 2019). Previous studies have emphasized the impact of Green HRM on employees' environmentally sustainable lifestyles. Naqvi & Siddiqui (2019) investigated the mediating effect of a green lifestyle on the link between Green Human Resource Management (GHRM) and employee performance across multiple industries in Pakistan. Paro ragas et al. (2017) similarly, it was discovered that GHRM promotes sustainable staff lifestyles, supporting the idea that GHRM serves as a precursor to the adoption of green lifestyles. Outside of professional environments, eco-friendly lifestyle decisions impact wider pro-environmental actions. Mohd Suki (2017) similarly, it was noted that the green lives of Malaysian university students impacted their happiness and loyalty toward the use of recyclable products, hence strengthening their commitment to pro-environmental behaviors.

Axsen et al. (2015) corroborated this correlation, indicating that persons participating in environmentally sustainable practices, such as recycling, utilizing hybrid automobiles, and consuming organic food, are more inclined to embrace pro-environmental behaviors. This indicates that environmentally sustainable practices may significantly predict Organizational Citizenship Behavior for the Environment (OCBE). Based on this theoretical and empirical base, this study proposes the following hypothesis:

H2: Green lifestyle mediates the relationship between GHRM and OCBE.

2.3. Moderating Role of Organizational Commitment

Organizational commitment denotes an employee's degree of identification, loyalty, and engagement with their organization (Singh & Onahring, 2019). It includes an individual's commitment to the organization and the organization's dedication to its employees (Vakola & Nikolaou, 2005). This commitment is classified into three dimensions: affective, continuance, and normative. Affective commitment denotes an emotional bond and a readiness to engage actively (Allen & Meyer, 1990). Continuance commitment is influenced by the perceived costs of departing from the organization, as employees evaluate the trade-offs between remaining and pursuing new possibilities (Allen & Meyer, 1990). Normative commitment stems from a sense of obligation, prompting employees to stay with the firm due to moral duty or reciprocation for favorable treatment (Meyer & Allen, 1997). Enhancing these commitments can promote employees' engagement in discretionary actions that advantage the organization, such as organizational citizenship behavior.

When employees exhibit great commitment, they assimilate the organization's beliefs and objectives, exert considerable effort towards its success, and are driven to sustain long-term affiliation (Burud & Tumolo, 2004). This devotion frequently transcends formal employment duties, encouraging people to participate in voluntary pro-environmental actions. When a firm exhibits a robust commitment to sustainability, employees are inclined to react favorably by aligning their behaviors with the organization's environmental goals. When management actively endorses ecological activities, employees view this as a just and responsible corporate strategy, thereby fostering OCBE (Erdogan et al., 2015). Consequently, we put up the subsequent hypothesis:

H3: Organizational commitment moderates the relationship between GHRM and OCBE.

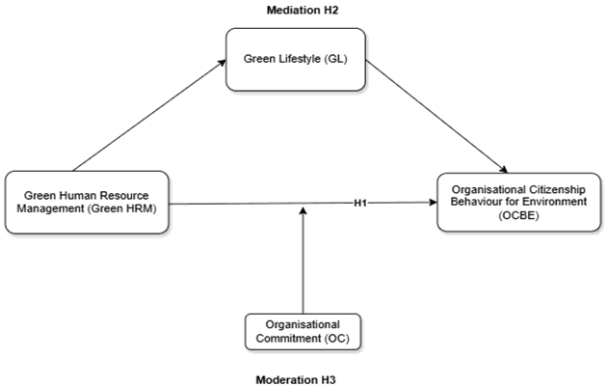


Fig. 1: Conceptual Framework.

3. Methodology

3.1. Data Collection Procedure

The current study employs a quantitative survey research strategy (Sekaran, 2016). A one-time data collection employing a cross-sectional design was utilized. The sample is made up of young working professionals in Chennai. There are several business organizations in and around Chennai, but the researcher has chosen four business sectors that are predominant in the Chennai region. Quota sampling, a non-probability sampling method, was employed to draw samples from four industry sectors: Software and IT, Manufacturing, Banking, and Services. Convenience sampling is employed to gather data from respondents across several business sectors. 500 questionnaires were distributed, and 442 filled-in responses were collected. After data cleaning and removal of outliers, 407 responses were used for the study with a response rate of 88.4%. Table 1 presents the demographic profile of the respondents.

Table 1: Demographic Profile

Demographic Variable	Sample Composition	Frequency	Percentage
Gender	Male	208	51.1
	Female	199	48.9
Age	Below 25	103	25.3
	26-35	120	29.5
	36-45	99	24.3
	Above 46	85	20.9
Educational qualification	Bachelor	210	51.6
	Master	157	38.6
	Ph.D.	18	4.4
	Certification courses	22	5.4
Organizational sector	Software and IT	97	23.8
	Manufacturing	113	27.8
	Banking	107	26.3
	Services	90	22.1
Current Position	Executive	207	50.9
	Middle level	147	36.1
	Senior level	53	13.0
Work Experience	1 year or less	94	23.1
	2-4 years	101	24.8
	5-7 years	88	21.6
	8 years or more	124	30.5

3.2. Measures

The study incorporates four variables: Green HRM, Green Lifestyle, Organizational Commitment, and Organizational Citizenship Behaviour for the Environment (OCBE). A six-item scale for GHRM was derived from the research conducted by Dumont et al. (2017). An eight-item scale for OCBE is taken from the research conducted by Pinzone et al. (2016). A seven-item scale was utilized to assess the green lifestyle, as referenced in the study. The assessment of organizational commitment pertains to Wilson et al. (2016), which employs the three-component Organizational Commitment framework established by Allen & Meyer (1990), encompassing three dimensions: affective commitment, continuance commitment, and normative commitment. All measurements employ a five-point Likert scale, ranging from 5 – Always to 1 – Never. The research included relevant control factors, including gender, age, educational attainment, and current employment status (Ribeiro et al., 2022).

3.3. Common Method Bias

We use common method variance (CMV) since the questionnaires were gathered from the same respondents at the same time. The methods proposed by Podsakoff et al. (2003) were used to combat CMV. For the measurements of the constructs to appear independently by using distinct sets of instructions in the questionnaires, proximal and methodological separation were employed (Rubel et al., 2020). Harman's single-factor test was used to gauge the degree of CMV for statistical control. CMV is problematic, according to Podsakoff et al. (2003) if the majority of the variance is explained by a single latent factor. CMV was not a significant problem in the dataset, as the results showed that the variance explained by the first component, 34.20%, was significantly less than 50%. A common latent factor model test using AMOS was also performed in this study, and the results showed that the model fit parameters with and without the method factor were almost the same (Afthanorhan et al., 2021). These two statistical methods' findings imply that there might not be a problem with the CMB.

3.4. Data Screening and Normality Test

To examine the normality of the dataset, 19 univariate outliers were removed based on absolute Z-scores greater than or equal to 3, following the recommendation of Hair et al. (2010). Additionally, 16 multivariate outliers were identified and excluded using Mahalanobis distance values. The dataset was examined for multivariate normality before the best estimation technique was chosen. Following the recommendations made by Cain et al. (2017)The online tool WebPower was used to access multivariate normality. According to Mardia's multivariate analysis, the results showed a departure from multivariate normality. Kurtosis ($\beta = 809.92$, $p < 0.01$) and skewness ($\beta = 132.36$, $p < 0.01$). The results showed that Mardia's multivariate skewness ($\beta = 132.36$, $p < 0.01$) and kurtosis ($\beta = 809.92$, $p < 0.01$) showed a significant departure from multivariate normality. This infraction prompted the use of a bootstrapping technique with 5000 resamples to support hypothesis testing, in accordance with Kock & Lynn (2012) suggested methodology. Furthermore, statistical power—an essential consideration in SEM due to its influence on model fit and parameter estimates was taken into account. A sample size of 150 to 200 is typically adequate to achieve acceptable statistical power, claims Barrett (2007). Thus, the study's sample size was deemed appropriate for accurate model estimation (Das, 2013).

3.5. Techniques Used for Data Analysis

The analysis was conducted in two phases. In the initial phase, we used SPSS version 25 to compute reliability coefficients (Cronbach's alpha), create descriptive statistics, analyze univariate normality, and ascertain the correlation matrix between the primary and control variables. In the second step, we performed structural equation modeling (SEM) using AMOS version 20 and the maximum likelihood estimation technique. Testing the measurement model and the structural model that matched the proposed relationships was part of this. When evaluating the measurement model, we looked at intercorrelations between latent constructs, evaluated multivariate normality, and used confirmatory factor analysis (CFA) to test for convergent and discriminant validity.
Green Human Resource Management (GHRM), Organizational Citizenship Behavior for the Environment (OCBE), the mediating role of Green Lifestyle (GL), and the moderating role of Organizational Commitment (OC) were then tested by the structural model, which was estimated (see Figure 1).

4. Results

4.1. Evaluation of The Measurement Model

The results of the exploratory factor analysis are good. The results of the Bartlett test of sphericity are significant, and the sample adequacy measure is 0.875 (>0.6). The validity and reliability of the measurement model were investigated using confirmatory factor analysis (CFA) (Figure 2). The following is the model fit for the measurement model. The value of $\chi 2/df$ is less than the cut-off value of 3, and it is 2.400 (Kline, 1998). The Tucker–Lewis index (TLI) = 0.973 surpasses the threshold value of 0.90 (Bentler & Bonett, 1980), the Comparative Fit Index (CFI) = 0.980, and the Incremental Fit Index (IFI) = 0.980 surpass the threshold value of 0.95 (Hu & Bentler, 1999). The measurement model appears to have an excellent fit, as indicated by the standardized root mean squared residual (SRMR) = 0.064 (cut-off value is 0.08) and the root mean squared error of approximation (RMSEA) score = 0.059 (cut-off value is <0.06) (Hu & Bentler, 1999; Aiswarya et al., 2024). Table 2 provides the mean and standard deviation as well as the findings of the convergent and discriminant validity, standardized factor loadings, Average Variance Extracted (AVE), and Composite Reliability (CR) tests.

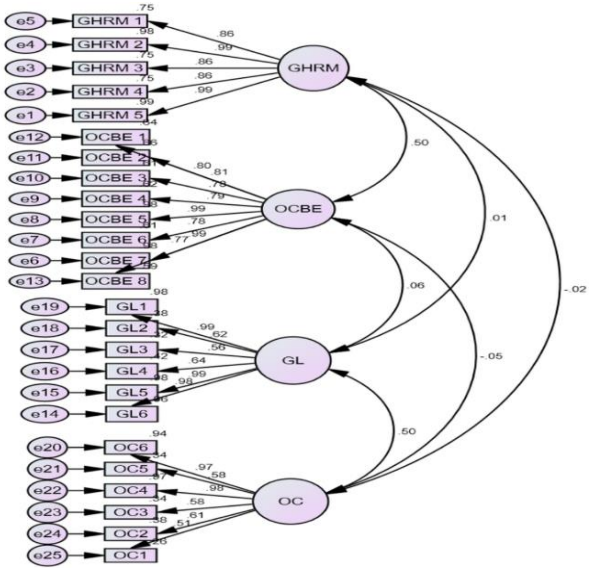


Fig. 2: CFA Output – Standardized Coefficients.

Table 2: Measurement Model

Constructs	β	t-stat	Cronbach α/CR	AVE
Green Human Resource Management (GHRM)			0.97/0.96	0.84
GHRM 1	0.865***	33.88		
GHRM 2	0.991***	109.13		
GHRM 3	0.864***	33.70		
GHRM 4	0.864***	33.74		
GHRM 5	0.994***			
Organizational Citizenship Behaviour for Environment (OCBE)			0.96/0.93	0.71
OCBE 1	0.799***	26.05		
OCBE 2	0.813***	27.37		
OCBE 3	0.780***	24.55		
OCBE 4	0.786***	25.03		
OCBE 5	0.992***	95.59		
OCBE 6	0.783***	24.73		
OCBE 7	0.988***			
OCBE 8	0.769***	23.691		
Green Lifestyle (GL)			0.92/0.92	0.67
GL 1	0.989***			
GL 2	0.616***	77.10		
GL 3	0.564***	15.46		
GL 4	0.644***	13.55		
GL 5	0.988***	16.63		
GL 6	0.979***	75.64		
Organizational Commitment (OC)			0.90/0.86	0.53

OC 1		0.513***	11.77			
OC 2		0.615***	15.21			
OC 3		0.581***	14.00			
OC 4		0.984***	54.01			
OC 5		0.580***	13.94			
OC 6		0.969***				
Descriptive statistics and discriminant validity						
	Mean	σ	GHRM	OCBE	GL	OC
GHRM	16.43	5.58	0.917			
OCBE	30.62	8.52	0.487***	0.843		
GL	24.42	5.32	0.455***	0.365**	0.819	
OC	25.09	4.53	0.510***	0.652***	0.402***	0.732

Note: **Significant at p<0.01; ***Significant at p<0.001; C.R. is composite reliability, and AVE is average variance extracted.

The measurement model was evaluated using Confirmatory Factor Analysis (CFA) to establish the reliability and validity of the study constructs. Table 2 presents the results, which confirm the measurement instruments used in the study. Internal consistency was supported by Cronbach's alpha values ranging from 0.90 to 0.97, indicating high reliability for all constructs. Additionally, composite reliability (CR) values were strong, ranging between 0.86 and 0.96, exceeding the generally accepted benchmark of 0.70, which suggests consistent internal structure among the measurement items. Convergent validity was confirmed by examining the standardized factor loadings and average variance extracted (AVE). All factor loadings were statistically significant ($p < .001$) and exceeded 0.50, with values ranging from 0.513 to 0.994, suggesting that the items adequately represent their respective constructs. The AVE values ranged from 0.53 to 0.84, surpassing the minimum acceptable level of 0.50, indicating that a substantial portion of the variance in each construct is explained by its indicators. The discriminant validity of the model was assessed by comparing the square roots of the AVE values to the inter-construct correlations. As shown diagonally in Table 3, each construct's square root of AVE was greater than its correlations with other constructs, thus confirming the discriminant validity(Fornell & Larcker, 1981). The results demonstrate that the measurement model is both reliable and valid, supporting the use of these constructs in subsequent structural analyses.

4.2. Result of Path Analysis

The results of the structural model are summarized in Table 3. The findings provide strong support for the proposed hypotheses. To begin with, the path from GHRM to OCBE was statistically significant (β = 0.149, S.E. = 0.062, C.R. = 2.410), thereby supporting H1. Additionally, GHRM had a significant positive influence on GL (β = 0.165, S.E. = 0.023, C.R. = 7.278), and GL, in turn, significantly predicted OCBE (β = 0.310, S.E. = 0.058, C.R. = 5.311). The indirect path from GHRM to OCBE through GL was also significant (unstandardized β = 0.05, Boot S.E. = 0.01, 95% CI [0.02, 0.09]), indicating a partial mediation of GL on the relationship between GHRM and OCBE, confirming H2. The effect of OC on OCBE was found to be substantial (β = 0.612, S.E. = 0.187, C.R. = 3.280). Furthermore, the interaction term (GHRM × OC) significantly predicted OCBE (β = 0.747, S.E. = 0.271, C.R. = 2.756), providing evidence for a moderation effect and supporting H3.

The results of the hypothesis testing confirm the presence of mediation and moderation effects within the proposed model, which is controlled for variables such as gender, age, level of education, and current job position. When OCBE was examined as the dependent variable, age (β = –0.1023, t = –3.26, p < 0.01) and educational qualification (β = –0.3841, t = –2.84, p < 0.01) were found to be statistically significant predictors. In contrast, gender and current job position did not show significant effects on OCBE.

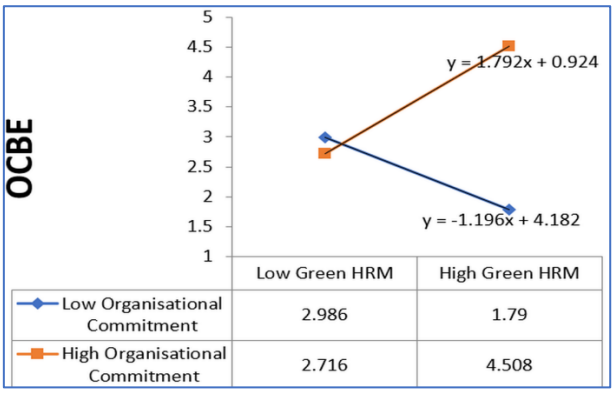
Table 3: Regression Weights – Path Model

Path	Standardized Estimate	Unstandardized Estimate	S.E.	C.R.	Hypothesis (Supported/Not supported
GHRM → OCBE	.487	.149	.062	2.410	H1 Supported
GHRM → GL	.455	.165	.023	7.278	
GL → OCBE	.365	.310	.058	5.311	
OC → OCBE	.752	.612	.187	3.280	
GHRM *OC → OCBE (Moderation effect)	.973	.747	.271	2.756	H3 Supported

Relationship	Unstandardized beta	Boot S. E	Boot LLCI	Boot ULCI	Hypothesis (Supported/Not supported
GHRM → GL → OCBE (Mediation – Indirect effect)	0.05	0.01	0.02	0.09	H2 Supported

Note: GHRM – Green Human Resource Management; OCBE-Organizational Citizenship behaviour for Environment; Organizational Commitment; GL-Green Lifestyle. * Significant at p < 0.05, ** Significant at p < 0.01, *** Significant at p < 0.001.

Figure 3 depicts the moderation effect of organizational commitment (OC) on the relationship between Green Human Resource Management (GHRM) and Organizational Citizenship Behavior for the Environment (OCBE). The graph presents two interaction lines: one for low organizational commitment (blue line) and another for high organizational commitment (red line). The slope of the red line (high OC) is visibly steeper than that of the blue line, indicating that employees with high organizational commitment experience a stronger positive relationship between GHRM and OCBE. In contrast, the slope of the blue line (low OC) is relatively shallow, indicating a weaker effect of GHRM on OCBE when organizational commitment is low. This divergence in slope indicates a significant interaction effect, where the effectiveness of GHRM in promoting OCBE is contingent upon the level of organizational commitment. The steeper slope under high commitment reflects a synergistic effect, suggesting that organizations can amplify the impact of their green HRM efforts by simultaneously cultivating higher levels of organizational commitment among employees. These results not only confirm the moderating role of OC but also emphasize the importance of addressing affective and attitudinal readiness in employees to maximize the behavioral outcomes of green HRM strategies.



	Low Green HRM	High Green HRM
Low Organisational Commitment	2.986	1.79
High Organisational Commitment	2.716	4.508

Fig. 3: Moderation Effect of Organizational Commitment on the Relationship Between GHRM Practices and OCBE.

Note: Green HRM – Green Human Resource Management; OCBE-Organizational Citizenship behaviour for Environment. The graph illustrates that when organizational commitment is high (red line), the positive impact of GHRM on OCBE is stronger, whereas with low org anizational commitment (blue line), the effect is weaker.

5. Discussion

The goal of this study is to look at how GHRM practices affect OCBE, with green GL acting as a mediator and OC as a moderator. Hypothesis 1 says that GHRM has a significant impact on employees' OCBE. Previous studies have shown that OCBE is important for helping businesses manage their environmental impact well (Pham et al., 2019). When companies use well-organized GHRM policies, they help the environment and their employees, which leads to long-term growth in an optimal manner (Meng et al., 2022). The current results support earlier research that found a positive relationship between GHRM and OCBE (Agarwal et al., 2024; Ahmed et al., 2024; Nasim et al., 2024; Sheikh et al., 2024). H2 shows that GL has a significant impact on the relationship between GHRM practices and OCBE. This supports the idea that GHRM has a greater impact on pro-environmental behavior when employees maintain a green lifestyle. This is in line with the results that Meng et al. (2022) found, which showed that GL is an important link between GHRM and green organizational citizenship behavior. Also, H3 shows that OC has a significant impact on the link between GHRM and OCBE, which is in line with the findings Mughal & Malik (2023) identified, which says that employee commitment makes GHRM's positive effect on environmentally friendly behaviors even stronger. Gyensare et al. (2024) also said that resource commitment makes the relationship between GHRM and employees' environmentally friendly behavior stronger.

While this study advances understanding of the GHRM–OCBE relationship within the Indian context, the generalizability of its findings to other cultural or economic settings requires careful consideration. Institutional features such as mandatory CSR policies, rapid digitalization, and sectoral diversity position India as a distinctive testbed for workplace sustainability (Bhatia & Dhawan, 2023; Echeverri-Gent & Sinha, 2025; Kolluru et al., 2025). In other emerging economies, however, variations in cultural norms, regulatory frameworks, and resource availability may influence how employees respond to GHRM practices. For example, the mediating effect of green lifestyle and the moderating role of organizational commitment may be more pronounced in collectivist cultures, but potentially weaker in resource-constrained settings (Daivadanam et al., 2013; Rubaca et al., 2024). Thus, while the overall positive link between GHRM and OCBE appears robust across contexts, the pathways and boundary conditions may vary.

6. Theoretical contribution

This study adds to the body of research on green management by making it clear how GHRM practices affect the way employees do their jobs in terms of the environment. Previous research has shown how important GHRM is for achieving environmental goals, but not much is known about the relationship between GHRM and outcomes like OCBE. This study uses social exchange theory and attitude-behavior-context theory to create a theoretical model that shows how GHRM greatly improves OCBE. Unlike broad OCB, OCBE makes it clear that it helps the environment by reducing the damage caused by organizational actions.

This study shows that the model works in India, which makes GHRM easier to understand and use in other cultures. This study helps people understand GHRM better by showing that GL is an important factor in the relationship between GHRM and OCBE. The results show that employees are more likely to take part in OCBE when GHRM practices help them live a more environmentally friendly lifestyle. GL acts as a psychological link between HR strategies that focus on the environment and the daily lives, values, and actions of employees. This shows that GHRM affects how people act at work and encourages people to live sustainably outside of work. This small-scale study gives us new information about how changes in people's lifestyles can have bigger effects on the environment. It also shows how important it is to promote eco-friendly lifestyles in order to make environmental initiatives more effective. It is important to promote a sustainable lifestyle among employees because it leads to long-lasting, eco-friendly behavior that is in line with both business and societal environmental goals.

This study shows that organizational commitment changes the relationship between GHRM and OCBE. This information gives us a full understanding of how GHRM changes the way employees think and act about the environment. When employees are very dedicated to their company, GHRM has a much bigger positive effect on OCBE. This means that GHRM methods alone might not be enough to get people to act in an environmentally friendly way unless they also feel emotionally and mentally connected to their company. As a result, building corporate commitment can make GHRM programs more effective, which can lead to more engaged employees and more environmentally friendly behavior. This finding adds to our theoretical understanding of the GHRM–OCBE relationship and shows how important it is to create a supportive corporate culture that encourages both commitment and sustainability.

7. Managerial Implications

The results of this study provide organizational leaders and HR professionals with actionable insights for encouraging sustainable workplace habits. The positive impact of GHRM on OCBE shows how important it is for businesses to include green HR practices in their policies (Dwumah et al., 2025). To encourage employees to adopt environmentally friendly habits that go beyond their official job duties, managers must make the design and implementation of comprehensive GHRM programs a top priority. These programs should include eco-friendly recruitment, training, and performance management (Ishaque & Ansari, 2025; Ojo et al., 2022). Specifically, organizations across sectors can tailor GHRM practices to their operational contexts. To make the findings actionable, we provide sector-specific illustrations of GHRM practices and their effects. In IT, energy-efficient coding workshops and digital waste reduction training equip employees with resource-saving skills and promote voluntary sharing of green solutions, reflecting OCBE. In manufacturing, green recruitment and training on waste minimization and lean production encourage employees to reduce workplace waste, suggest eco-innovations, and extend eco-conscious practices beyond their roles. In banking, eco-conscious onboarding and incentives for paperless practices motivate staff to champion initiatives like digital transactions and reduced paper use, clear expressions of OCBE. In healthcare, training on energy conservation, biomedical waste segregation, and sustainable procurement enables employees to comply with protocols while voluntarily educating peers and advocating eco-friendly practices.

The fact that GL partially mediates the link between GHRM and OCBE shows how important it is to encourage employees to have and act on environmentally friendly beliefs not only in the workplace but also in their personal lives. Organizations can encourage this by raising awareness, giving incentives for eco-friendly behaviors, and giving employees the support they need to make eco-friendly choices at work and at home (Bai et al., 2024). For instance, in the IT sector, awareness campaigns on reducing digital waste and incentives for energy-efficient practices can motivate employees to adopt green habits at work, i.e., optimizing energy use in data centres and in personal life, such as responsible e-waste disposal. In manufacturing, programs that reward employees for innovative waste-reduction ideas or energy-saving initiatives can inspire them to reduce household waste and conserve resources at home. In banking, recognition for promoting paperless transactions and digital solutions can reinforce employees' willingness to minimize paper use in personal financial activities. In healthcare, campaigns on responsible biomedical waste management and green facility usage can encourage staff to apply similar practices in personal contexts, such as home waste segregation and mindful consumption.

The moderating effect of organizational commitment shows that employees' emotional ties to and loyalty to the company make the positive effects of green human resource management on environmental citizenship behaviors even stronger. So, managers need to build a strong business culture that encourages commitment through clear communication, recognition programs, and leadership that openly supports environmental activities (Roscoe et al., 2019). Making employees feel like they belong can make them more likely to do things that help the environment on their own time (Byrd, 2022). For example, in the IT sector, recognition programs that reward employees for reducing digital energy consumption can strengthen commitment while motivating them to promote green solutions beyond their roles. In manufacturing, leadership that visibly supports sustainable production processes can deepen employees' loyalty and inspire them to volunteer ideas for eco-innovation. In banking, clear communication about the organization's sustainability goals can foster commitment and encourage employees to champion paperless initiatives with clients. In healthcare, managers who recognize staff contributions to energy conservation and biomedical waste reduction can reinforce loyalty and inspire employees to advocate for eco-friendly practices in their communities. Combining green HR practices with efforts to encourage employees to live eco-friendly lives and be committed to the organization can have a synergistic effect that improves sustainable organizational citizenship behaviors. This helps to achieve long-term environmental sustainability goals. Thus, by embedding green HRM practices, cultivating eco-friendly lifestyles, and strengthening organizational commitment, managers can foster sustained OCBE, helping organizations achieve both business and environmental goals.

8. Limitations and Scope for Future Research

This study has limitations that must be considered when evaluating the findings and may provide useful guidance for future research. First, the use of cross-sectional data constrains the capacity to deduce causation among the analyzed variables and limits the potential for predicting future trends. Future research should utilize a longitudinal strategy, using data from several sources to more effectively delineate temporal correlations. Utilizing a quasi-experimental methodology may yield more compelling evidence of causation and strengthen the validity of the results. Second, the study relied on a purely quantitative research methodology, which may lack the depth and contextual insight that qualitative approaches provide, especially in examining the subjective aspects of human behavior. Incorporating qualitative methods in future research may provide a more refined comprehension of employee environmental behaviors. Third, the study is limited to the Indian context, where cultural norms, regulatory environments, and economic conditions influence how GHRM shapes OCBE. These dynamics may not operate in the same way in other developing economies. Future research should therefore test these relationships in other developing contexts, while comparative studies between India and developed countries would be valuable to examine whether the mediating role of green lifestyle and the moderating role of organizational commitment are universal or context-specific.

Finally, the outcomes of this study must be evaluated considering many limitations, which also indicate intriguing avenues for future research. This study primarily examined the overall impact of GHRM on OCBE; however, further research is recommended to investigate specific elements of GHRM, including green employee empowerment, green performance management, green training, and green employee involvement, as well as their associations with constructs such as green transformational leadership, organizational environmental culture, green intellectual capital, and OCBE. Secondly, to expand the scope of the conceptual framework, subsequent research could investigate the moderating effects of variables such as top management commitment and ethical leadership. Thirdly, future research could expand upon this model by employing varied GHRM measuring techniques to achieve a more thorough comprehension of the relationship between GHRM practices and employee civic behaviors. Research on GHRM and OCBE in the educational sector is still in its infancy, underscoring the necessity for future investigation from many viewpoints to cultivate a more comprehensive understanding in this domain.

Acknowledgment

I extend my profound gratitude to Dr. V. Sasirekha, Professor and Dean, Faculty of Management, SRM Institute of Science and Technology, Vadapalani Campus, for her invaluable guidance, insightful feedback, and unwavering support throughout the course of this research.

Disclosure Statement

The author declares that there are no known financial, professional, or personal conflicts of interest that could have appeared to influence the work reported in this article.

Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or non-profit sectors.

Data Availability Statement

The dataset generated and analyzed during the current study is available from the corresponding author upon reasonable request.

References

[1] Aboramadan, M. (2022). The effect of green HRM on employee green behaviors in higher education: the mediating mechanism of green work engagement. *International Journal of Organizational Analysis*, *30*(1), 7–23. https://doi.org/10.1108/IJOA-05-2020-2190.

[2] Afthanorhan, A., Awang, Z., Abd Majid, N., Foziah, H., Ismail, I., Al Halbusi, H., & Tehseen, S. (2021). Gain More Insight from Common Latent Factor in Structural Equation Modeling. In *J. Phys. Conf. Ser.* (Vol. 1793). IOP Publishing. https://doi.org/10.1088/1742-6596/1793/1/012030

[3] Agarwal, P., Upadhyay, R. K., Anuj, N. A., Ahalawat, K., Kukreti, R., & Akhtar, A. (2024). Environmental performance in higher education and green HRM: the mediating role of organisational citizenship behaviour. *International Journal of Management Practice*, *17*(6), 713–734. https://doi.org/10.1504/IJMP.2024.142041.

[4] Ahmed, Z., Khosa, M., Nguyen, N. T., Fahmi Omar Faqera, A., Kayode Ibikunle, A., & Raza, S. (2024). Double-edged sword effects of green HRM on employee organizational citizenship behavior for the environment: interactive effects and mediation mechanisms. *Business Process Management Journal*, *30*(5), 1369–1398. https://doi.org/10.1108/BPMJ-11-2023-0889

[5] Aiswarya, U. B., Harindranath, R. M., & Challapalli, P. (2024). Social Media Information Sharing: Is It a Catalyst for Green Consumption among Gen X and Gen Y Cohorts? *Sustainability*, *16*(14), 6011. https://doi.org/10.3390/su16146011.

[6] Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of Occupational Psychology*, *63*(1), 1–18. https://doi.org/10.1111/j.2044-8325.1990.tb00506.x.

[7] Alvarado, R., & Toledo, E. (2017). Environmental degradation and economic growth: evidence for a developing country. *Environment, Development and Sustainability*, *19*(4), 1205–1218. https://doi.org/10.1007/s10668-016-9790-y.

[8] Anwar, N., Nik Mahmood, N. H., Yusliza, M. Y., Ramayah, T., Noor Faezah, J., & Khalid, W. (2020). Green Human Resource Management for organisational citizenship behaviour towards the environment and environmental performance on a university campus. *Journal of Cleaner Production*, *256*, 120401. https://doi.org/10.1016/j.jclepro.2020.120401.

[9] Axsen, J., Bailey, J., & Castro, M. A. (2015). Preference and lifestyle heterogeneity among potential plug-in electric vehicle buyers. *Energy Economics*, *50*, 190–201. https://doi.org/10.1016/j.eneco.2015.05.003

[10] Bai, J., Tian, Q., Fan, X., & Sun, H. (2024). Perceived corporate social responsibility and employee voluntary pro-environmental behavior: Does moral motive matter? *Corporate Social Responsibility and Environmental Management*, *31*(2), 816–830. https://doi.org/10.1002/csr.2603.

[11] Barrett, P. (2007). Structural equation modelling: Adjudging model fit. *Personality and Individual Differences*, *42*(5), 815–824. https://doi.org/10.1016/j.paid.2006.09.018.

[12] Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin*, *88*(3), 588–606. https://doi.org/10.1037/0033-2909.88.3.588

[13] Bhatia, A., & Dhawan, A. (2023). A paradigm shift in corporate social responsibility: India's transition from mandatory regime to the COVID-19 era. *Social Responsibility Journal*, *19*(1), 166–183. https://doi.org/10.1108/SRJ-01-2021-0020.

[14] Bhattacharjee, J., Singh, R., & Singh, N. K. (2025). Embracing Sustainability: Role of Corporate Social Responsibility in Promoting Green Growth Amidst a Competitive Business Environment in India. In *Integrating Environmental Sustainability and Corporate Social Responsibility: A Move Beyond Profit: Corporate Social Responsibility for Environmental Sustainability* (pp. 205–223). Springer. https://doi.org/10.1007/978-3-031-81469-3_9

[15] Blau, P. M. (1964). Justice in social exchange. *Sociological Inquiry*, *34*(2). https://doi.org/10.1111/j.1475-682X.1964.tb00583.x.

[16] Boiral, O., & Paillé, P. (2012). Organizational Citizenship Behaviour for the Environment: Measurement and Validation. *Journal of Business Ethics*, *109*(4), 431–445. https://doi.org/10.1007/s10551-011-1138-9.

[17] Bombiak, E. (2019). *Green human resource management-the latest trend or strategic necessity? https://doi.org/10.9770/jesi.2019.6.4(7)*

[18] Burud, S., & Tumolo, M. (2004). Leveraging the new human capital: Adaptive strategies, results achieved, and stories of transformation. *People*, *1*, 3.

[19] Byrd, M. Y. (2022). Creating a culture of inclusion and belongingness in remote work environments that sustains meaningful work. *Human Resource Development International*, *25*(2), 145–162. https://doi.org/10.1080/13678868.2022.2047252.

[20] Cain, M. K., Zhang, Z., & Yuan, K.-H. (2017). Univariate and multivariate skewness and kurtosis for measuring nonnormality: Prevalence, influence and estimation. *Behavior Research Methods*, *49*(5), 1716–1735. https://doi.org/10.3758/s13428-016-0814-1.

[21] Daily, B. F., Bishop, J. W., & Govindarajulu, N. (2009). A Conceptual Model for Organizational Citizenship Behavior Directed Toward the Environment. *Business & Society*, *48*(2), 243–256. https://doi.org/10.1177/0007650308315439.

[22] Daivadanam, M., Absetz, P., Sathish, T., Thankappan, K. R., Fisher, E. B., Philip, N. E., Mathews, E., & Oldenburg, B. (2013). Lifestyle change in Kerala, India: needs assessment and planning for a community-based diabetes prevention trial. *BMC Public Health*, *13*(1), 95. https://doi.org/10.1186/1471-2458-13-95

[23] Das, G. (2013). The effect of pleasure and arousal on satisfaction and word-of-mouth: An empirical study of the Indian banking sector. *Vikalpa*, *38*(2), 95–103. https://doi.org/10.1177/0256090920130206.

[24] Dowruang, S., & Akkawanitcha, C. (2019). *Organizational Citizenship Behavior for the Environment: The Spillover Effects of Private Lifestyle on Work-Life*. Silpakorn University.

[25] Dubey, N. (2024). Digital Transformation and Corporate Social Responsibility in the Tourism Business of India: A Comprehensive Analysis. *Business Transforma on & Sustainable Innova on: An Edge to the Global Circular Economy*, 78.

[26] Dumont, J., Shen, J., & Deng, X. (2017). Effects of Green HRM Practices on Employee Workplace Green Behavior: The Role of Psychological Green Climate and Employee Green Values. *Human Resource Management*, *56*(4), 613–627. https://doi.org/10.1002/hrm.21792.

[27] Dwumah, K., Sappor, P., & Sarpong, F. A. (2025). Navigating the Green Path: Strategies for Enhancing Organizational Citizenship Behavior for the Environment Through Green HRM Practices. *Business Strategy and the Environment*, *34*(3), 3045–3061. https://doi.org/10.1002/bse.4149.

[28] Echeverri-Gent, J., & Sinha, A. (2025). Analyzing the Diversity of a Large Emerging Market: Sectoral Politics in India's Multi-level Political Economy. *Studies in Comparative International Development*, *60*(2), 283–309. https://doi.org/10.1007/s12116-025-09464-4.

[29] Emerson, R. M. (1972). Exchange theory, part I: A psychological basis for social exchange. *Sociological Theories in Progress*, *2*, 38–57.

[30] Erdogan, B., Bauer, T. N., & Taylor, S. (2015). Management commitment to the ecological environment and employees: Implications for employee attitudes and citizenship behaviors. *Human Relations*, *68*(11), 1669–1691. https://doi.org/10.1177/0018726714565723.

[31] Fawehinmi, O., Yusliza, M. Y., Mohamad, Z., Noor Faezah, J., & Muhammad, Z. (2020). Assessing the green behaviour of academics. *International Journal of Manpower*, *41*(7), 879–900. https://doi.org/10.1108/IJM-07-2019-0347

[32] Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, *18*(1), 39–50. https://doi.org/10.1177/002224378101800104

[33] Genoveva, G., & Syahrivar, J. (2020). Green Lifestyle among Indonesian Millennials: A Comparative Study between Asia and Europe. *Journal of Environmental Accounting and Management*, *8*(4), 397–413. https://doi.org/10.5890/JEAM.2020.12.007.

[34] Gilal, F. G., Nawaz, A., Riaz, A., Channa, K. A., & Jahanzeb, A. (2025). Achieving sustainability through green human resource management practices and environmental orientation fit: a multilevel modeling. *Evidence-Based HRM: A Global Forum for Empirical Scholarship*, *13*(2), 299–318. https://doi.org/10.1108/EBHRM-09-2022-0223

[35] Guagnano, G. A., Stern, P. C., & Dietz, T. (1995). Influences on Attitude-Behavior Relationships. *Environment and Behavior*, *27*(5), 699–718. https://doi.org/10.1177/0013916595275005.

[36] Gyensare, M. A., Adomako, S., & Amankwah-Amoah, J. (2024). Green HRM practices, employee well-being, and sustainable work behavior: Examining the moderating role of resource commitment. *Business Strategy and the Environment*, *33*(4), 3129–3141. https://doi.org/10.1002/bse.3642.

[37] Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). Multivariate data analysis, (7th ed.). In *New Jersey: Prentice Hall*. Pearson Prentice Hall Publishing Upper Saddle River, NJ, USA.

[38] Hameed, Z., Khan, I. U., Islam, T., Sheikh, Z., & Naeem, R. M. (2020). Do green HRM practices influence employees' environmental performance? *International Journal of Manpower*, *41*(7), 1061–1079. https://doi.org/10.1108/IJM-08-2019-0407.

[39] Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, *6*(1), 1–55. https://doi.org/10.1080/10705519909540118.

[40] Iftikar, T., Hussain, S., Malik, M. I., Hyder, S., Kaleem, M., & Saqib, A. (2022). Green human resource management and pro-environmental behaviour nexus with the lens of AMO theory. *Cogent Business and Management*, *9*(1). https://doi.org/10.1080/23311975.2022.2124603.

[41] Ishaque, S., Akmal, M., Masood, S., & Ansari, N. Y. (2025). Effect of Green Human Resource Management on Green Creativity and Organizational Citizenship Behaviour Towards Environment: The Mediating Role of Green Work Engagement. *Vision: The Journal of Business Perspective*, 09722629241307142. https://doi.org/10.1177/09722629241307142

[42] Ishaque, S., & Ansari, N. Y. (2025). Empowering sustainability: the role of green human resource management in fostering pro-environmental behavior in hospitality employees. *Journal of Hospitality and Tourism Insights*. https://doi.org/10.1108/JHTI-09-2024-1010

[43] Islam, T., Khan, M. M., Ahmed, I., & Mahmood, K. (2020). Promoting in-role and extra-role green behavior through ethical leadership: mediating role of green HRM and moderating role of individual green values. *International Journal of Manpower*, *42*(6), 1102–1123. https://doi.org/10.1108/IJM-01-2020-0036.

[44] Islam, T., Khan, M. M., Ahmed, I., & Mahmood, K. (2021). Promoting in-role and extra-role green behavior through ethical leadership: mediating role of green HRM and moderating role of individual green values. *International Journal of Manpower*, *42*(6), 1102–1123. https://doi.org/10.1108/IJM-01-2020-0036

[45] Jabbour, C. J. C. (2013). Environmental training in organisations: From a literature review to a framework for future research. *Resources, Conservation and Recycling*, *74*, 144–155. https://doi.org/10.1016/j.resconrec.2012.12.017.

[46] Kim, Y. J., Kim, W. G., Choi, H.-M., & Phetvaroon, K. (2019). The effect of green human resource management on hotel employees' eco-friendly behavior and environmental performance. *International Journal of Hospitality Management*, *76*(August 2017), 83–93. https://doi.org/10.1016/j.ijhm.2018.04.007.

[47] Kline, R. B. (1998). Principles and practice of structural equation modeling. *New York: Guilford.*

[48] Kock, N., & Lynn, G. (2012). Lateral Collinearity and Misleading Results in Variance-Based SEM: An Illustration and Recommendations. *Journal of the Association for Information Systems*, *13*(7), 546–580. https://doi.org/10.17705/1jais.00302.

[49] Kolluru, M., Kondaveti, M. S. R., & Hyams-Ssekasi, D. (2025). India's digital dividend: A strategic opportunity and challenge. *Multidisciplinary Reviews*, *8*(2), 2025035. https://doi.org/10.31893/multirev.2025035.

[50] Kramar, R. (2014). Beyond strategic human resource management: Is sustainable human resource management the next approach? *International Journal of Human Resource Management*, *25*(8), 1069–1089. https://doi.org/10.1080/09585192.2013.816863.

[51] Li, C., Naz, S., Khan, M. A. S., Kusi, B., & Murad, M. (2019). An empirical investigation on the relationship between a high-performance work system and employee performance: measuring a mediation model through partial least squares–structural equation modeling. *Psychology Research and Behavior Management*, *Volume 12*, 397–416. https://doi.org/10.2147/PRBM.S195533.

[52] Li, W., Abdalla, A. A., Mohammad, T., Khassawneh, O., & Parveen, M. (2023). Towards Examining the Link Between Green HRM Practices and Employee Green in-Role Behavior: Spiritual Leadership as a Moderator. *Psychology Research and Behavior Management*, *Volume 16*, 383–396. https://doi.org/10.2147/PRBM.S396114

[53] Lu, H., Cai, S., Liu, Y., & Chen, H. (2023). How GHRM impacts employee OCBE: the role of emotions and value discrepancy. *International Journal of Manpower*, *44*(2), 318–333. https://doi.org/10.1108/IJM-02-2021-0094.

[54] Malik, S. Y., Hayat Mughal, Y., Azam, T., Cao, Y., WAN, Z., ZHU, H., & Thurasamy, R. (2021). Corporate Social Responsibility, Green Human Resources Management, and Sustainable Performance: Is Organizational Citizenship Behavior towards Environment the Missing Link? *Sustainability*, *13*(3), 1044. https://doi.org/10.3390/su13031044

[55] Maseeh, H. I., Sangroya, D., Jebarajakirthy, C., Adil, M., Kaur, J., Yadav, M. P., & Saha, R. (2022). Anti-consumption behavior: A meta-analytic integration of attitude behavior context theory and well-being theory. *Psychology & Marketing*, *39*(12), 2302–2327. https://doi.org/10.1002/mar.21748.

[56] Meng, J., Murad, M., Li, C., Bakhtawar, A., & Ashraf, S. F. (2022). Green Lifestyle: A Tie between Green Human Resource Management Practices and Green Organizational Citizenship Behavior. *Sustainability*, *15*(1), 44. https://doi.org/10.3390/su15010044.

[57] Meyer, J. P., & Allen, N. J. (1997). *Commitment in the workplace: Theory, research, and application*. Sage. https://doi.org/10.4135/9781452231556

[58] Mohd Suki, N. (2017). Green products usage: structural relationships on customer satisfaction and loyalty. *International Journal of Sustainable Development & World Ecology*, *24*(1), 88–95. https://doi.org/10.1080/13504509.2016.1169563.

[59] Mtutu, P., & Thondhlana, G. (2016). Encouraging pro-environmental behaviour: Energy use and recycling at Rhodes University, South Africa. *Habitat International*, *53*, 142–150. https://doi.org/10.1016/j.habitatint.2015.11.031.

[60] Mughal, Y. H., & Malik, S. Y. (2023). Does commitment moderate relationship between green human resource management practices and employee performance. *Open Access Organization and Management Review*, *1*(1), 33–53. https://doi.org/10.59644/oagmr.1(1).13

[61] Muisyo, P. K., Qin, S., Ho, T. H., Julius, M. M., & Barisoava Andriamandresey, T. (2022). Implications of GHRM on organisational citizenship behaviour: the mediating role of enablers of green culture. *International Journal of Manpower*, *43*(3), 719–741. https://doi.org/10.1108/IJM-05-2020-0245

[62] Naqvi, S., & Siddiqui, D. A. (2019). Effect of GHRM Practices on Work Performance: The Mediatory Role of Green Lifestyle. *SSRN Electronic Journal*, *148*, 148–162. https://doi.org/10.2139/ssrn.3486132.

[63] Nasim, I., Cheema, S. M., Imtiaz, S., & Naeem, K. (2024). The role of green human resource management practices towards the health sector: with mediating role of organisational citizenship behaviour towards environment and psychological green climate. *International Journal of Management Practice*, *17*(2), 170–199. https://doi.org/10.1504/IJMP.2024.136987.

[64] Ojo, A. O., Tan, C. N.-L., & Alias, M. (2022). Linking green HRM practices to environmental performance through pro-environment behaviour in the information technology sector. *Social Responsibility Journal*, *18*(1), 1–18. https://doi.org/10.1108/SRJ-12-2019-0403

[65] Paillé, P., & Boiral, O. (2013). Pro-environmental behavior at work: Construct validity and determinants. *Journal of Environmental Psychology*, *36*, 118–128. https://doi.org/10.1016/j.jenvp.2013.07.014.

[66] Paillé, P., Boiral, O., & Chen, Y. (2013). Linking environmental management practices and organizational citizenship behaviour for the environment: a social exchange perspective. *The International Journal of Human Resource Management*, *24*(18), 3552–3575. https://doi.org/10.1080/09585192.2013.777934

[67] Pham, N. T., Tučková, Z., & Chiappetta Jabbour, C. J. (2019). Greening the hospitality industry: How do green human resource management practices influence organizational citizenship behavior in hotels? A mixed-methods study. *Tourism Management*, *72*(August 2018), 386–399. https://doi.org/10.1016/j.tourman.2018.12.008.

[68] Pinzone, M., Guerci, M., Lettieri, E., & Huisingh, D. (2019). Effects of 'green' training on pro-environmental behaviors and job satisfaction: Evidence from the Italian healthcare sector. *Journal of Cleaner Production*, *226*, 221–232. https://doi.org/10.1016/j.jclepro.2019.04.048.

[69] Pinzone, M., Guerci, M., Lettieri, E., & Redman, T. (2016). Progressing in the change journey towards sustainability in healthcare: the role of 'Green' HRM. *Journal of Cleaner Production*, *122*, 201–211. https://doi.org/10.1016/j.jclepro.2016.02.031

[70] Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, *88*(5), 879–903. https://doi.org/10.1037/0021-9010.88.5.879.

[71] Priyankara, H. P. R., Luo, F., Saeed, A., Nubuor, S. A., & Jayasuriya, M. P. F. (2018). How does leader's support for environment promote organizational citizenship behaviour for environment? A multi-theory perspective. *Sustainability (Switzerland)*, *10*(1). https://doi.org/10.3390/su10010271

[72] Ragas, S. F. P., Tantay, F. M. A., Chua, L. J. C., & Sunio, C. M. C. (2017). Green lifestyle moderates GHRM's impact on job performance. *International Journal of Productivity and Performance Management*, *66*(7), 857–872. https://doi.org/10.1108/IJPPM-04-2016-0076.

[73] Renwick, D. W. S., Redman, T., & Maguire, S. (2013). Green Human Resource Management: A Review and Research Agenda. *International Journal of Management Reviews*, *15*(1), 1–14. https://doi.org/10.1111/j.1468-2370.2011.00328.x.

[74] Ribeiro, N., Gomes, D. R., Ortega, E., Gomes, G. P., & Semedo, A. S. (2022). The Impact of Green HRM on Employees' Eco-Friendly Behavior: The Mediator Role of Organizational Identification. *Sustainability (Switzerland)*, *14*(5), 1–13. https://doi.org/10.3390/su14052897

[75] Rockström, J., Steffen, W., Noone, K., Persson, Å., Chapin III, F. S., Lambin, E., Lenton, T. M., Scheffer, M., Folke, C., & Schellnhuber, H. J. (2009). Planetary boundaries: exploring the safe operating space for humanity. *Ecology and Society*, *14*(2). https://doi.org/10.5751/ES-03180-140232.

[76] Roscoe, S., Subramanian, N., Jabbour, C. J. C., & Chong, T. (2019). Green human resource management and the enablers of green organisational culture: Enhancing a firm's environmental performance for sustainable development. *Business Strategy and the Environment*, *28*(5), 737–749. https://doi.org/10.1002/bse.2277

[77] Rubaca, U., Munir, M. M., Munir, M. H., & Munir, B. (2024). Human resource practices, organizational commitment, and knowledge-sharing intention: An empirical evidence from a cultural perspective. *Knowledge and Process Management*, *31*(3), 230–241. https://doi.org/10.1002/kpm.1778.

[78] Rubel, M. R. B., Kee, D. M. H., & Rimi, N. N. (2020). The influence of green HRM practices on green service behaviors: the mediating effect of green knowledge sharing. *Employee Relations*, *43*(5), 996–1015. https://doi.org/10.1108/ER-04-2020-0163

[79] Sadiq, M., Adil, M., & Paul, J. (2023). Organic food consumption and contextual factors: An attitude–behavior–context perspective. *Business Strategy and the Environment*, *32*(6), 3383–3397. https://doi.org/10.1002/bse.3306

[80] Sarmad, M., Pirzada, M. A., & Iqbal, R. (2023). Fostering extra-role green behavior through green HRM practices: mediating role of green absorptive capacity. *International Journal of Manpower*, *44*(8), 1535–1552. https://doi.org/10.1108/IJM-10-2021-0592.

[81] Sekaran, U. (2016). *Research methods for business: A skill building approach*. John Wiley & Sons.

[82] Shafaei, A., Nejati, M., & Mohd Yusoff, Y. (2020). Green human resource management. *International Journal of Manpower*, *41*(7), 1041–1060. https://doi.org/10.1108/IJM-08-2019-0406.

[83] Sheikh, A. A., Shan, A., Hassan, N. M., Khan, S. N., & AbdAlatti, A. (2024). Impact of green human resource management practices on hotels environmental performance: A mediation and moderation analysis. *Sustainable Futures*, *8*, 100409. https://doi.org/10.1016/j.sftr.2024.100409.

[84] Singh, K. D., & Onahring, B. D. (2019). Entrepreneurial intention, job satisfaction and organisation commitment - construct of a research model through literature review. *Journal of Global Entrepreneurship Research*, *9*(1), 16. https://doi.org/10.1186/s40497-018-0134-2.

[85] Umar, M., & Javeed, A. (2023). The Impact of Frugality on Green Brand Image. In the perspective of Attitude Behavior Context Theory. *Journal of Innovative Research in Management Sciences*, *4*(1), 54–64. https://doi.org/10.62270/jirms.v4i1.45.

[86] Vakola, M., & Nikolaou, I. (2005). Attitudes towards organizational change. *Employee Relations*, *27*(2), 160–174. https://doi.org/10.1108/01425450510572685.

[87] Veerasamy, U., Joseph, M. S., & Parayitam, S. (2024). Green Human Resource Management and Employee Green Behaviour: Participation and Involvement, and Training and Development as Moderators. *South Asian Journal of Human Resources Management*, *11*(2), 277–309. https://doi.org/10.1177/23220937221144361

[88] Wilson, M., Bakkabulindi, F., & Ssempebwa, J. (2016). Validity and reliability of Allen and Meyer's (1990) measure of employee commitment in the context of academic staff in Universities in Uganda. *Journal of Sociology and Education in Africa*, *14*(1), 1–9.

[89] Yong, J. Y., Yusliza, M. Y., & Fawehinmi, O. O. (2020). Green human resource management: A systematic literature review from 2007 to 2019. *Benchmarking*, *27*(7), 2005–2027. https://doi.org/10.1108/BIJ-12-2018-0438.

[90] You, F., & Kee, D. M. H. (2024). Green HRM, Green Creativity, and Sustainability: Evidence from Chinese Private Enterprises in China. In *Green Human Resource Management* (pp. 313–328). Springer Nature Singapore. https://doi.org/10.1007/978-981-99-7104-6_18.

[91] Yue, G., Wei, H., Khan, N. U., Saufi, R. A., Yaziz, M. F. A., & Bazkiaei, H. A. (2023). Does the Environmental Management System Predict TBL Performance of Manufacturers? The Role of Green HRM Practices and OCBE as Serial Mediators. *Sustainability (Switzerland)*, *15*(3). https://doi.org/10.3390/su15032436Zaidi, H., & Azmi, F. T. (2024). Workplace pro-environmental behaviour: a review and bibliometric analysis. *International Journal of Productivity and Performance Management*, *73*(1), 158–185. https://doi.org/10.1108/IJPPM-09-2021-0507.

[92] Zulfikarijah, F., Khwarazmita, T., Masudin, I., Jihadi, M., Jatmiko, R. D., & Malik, N. (2023). The role of GSCM and GHRM practices on green innovation in Indonesian real estate environmental performance. *International Journal of Agile Systems and Management*, *16*(1), 44. https://doi.org/10.1504/IJASM.2023.130471.

Appendix: Research Questionnaire

Section 1: Demographic Information

Instructions: Put a check mark (✓) to your answer.
Name (optional):

Gender:	Age:	Educational Qualification:
( ) Male	( ) Below 25	( ) Bachelor
( ) Female	( ) 26-35	( ) Master
( ) Others	( ) 36-45	( ) Ph.D.
	( ) Above 46	( ) Certification courses
		( ) Others, pls. specify

Type of Industry: ( ) Software and IT e.g., Infosys, TCS. ( ) Manufacturing i.e. factories.
( ) Banking e.g., HDFC bank, ICICI bank. ( ) Healthcare i.e. hospitals, etc.
( ) Others, pls. specify

Current Position:	Work Experience:
( ) Executive	( ) 1 year or less
( ) Middle level	( ) 2-4 years
( ) Senior level	( ) 5-7 years
	( ) 8 years or more

Section 2 - Green HRM Practices at Workplace

Instructions: Determine whether the following practices are included in your company's policies. Under Frequency Scale, put a check mark (✓) to the answer of your choice on how frequent you practice the following statements in your workplace.
Legend: 5 – Always 4 – Often 3 – Sometimes 2 – Rarely 1 – Never

Practices	Frequency Scale 5	4	3	2	1
My company sets green goals for its employees.					
My company provides employees with green training to promote green values.					
My company provides employees with green training to develop employees' knowledge and skills required for green management.					
My company considers employees' workplace green behavior in performance appraisals.					
My company relates employees' workplace green behaviors to rewards and compensation.					
My company considers employees' workplace green behaviors in promotion.					

Section 3 - Organizational Citizenship Behavior toward the Environment (OCBE)

Instructions: Please indicate the extent to which you agree with the following statements regarding your workplace behavior. Under Frequency Scale, put a check mark (✓) to the answer of your choice on how frequent you practice the following statements in your workplace.
Legend: 5 – Always 4 – Often 3 – Sometimes 2 – Rarely 1 – Never

	Frequency Scale 5	4	3	2	1
I actively participate in environmental events organized in and/or by the organization.					
I was stayed informed on environmental activities in the organization.					
I undertake environmental actions that contribute positively to the image of the organization.					
I volunteer for projects, initiatives, or events that address environmental issues.					
I suggest ways to reduce the environmental impact of the organization.					
I do everything they can to protect the environment at work.					
I encourage work colleagues to care about environmental issues.					
I willingly do additional work that results from environmental practices.					

Section 4: Green Lifestyle

Instructions: Please indicate the extent to which you agree with the following statements regarding your green lifestyle habits. Under Frequency Scale, put a check mark (✓) to the answer of your choice on how frequent you practice the following statements in your workplace.
Legend: 5 – Always 4 – Often 3 – Sometimes 2 – Rarely 1 – Never

	Frequency Scale 5	4	3	2	1
I make a special effort to buy products in recyclable containers.					
I have switched products for ecological reasons.					
I have attended a meeting of an organization specifically concerned with bettering the environment.					
I subscribe to ecological publications.					
I recycle at home or work.					
I keep track of my representative's voting records on environmental issues.					

Section 5: Organizational Commitment

Instructions: Please indicate the extent to which you agree with the following statements regarding your commitment to the organization. Under Frequency Scale, put a check mark (✓) to indicate how often you exhibit the following commitment behaviors in your organization.
Legend: 5 – Always 4 – Often 3 – Sometimes 2 – Rarely 1 – Never

	Frequency Scale 5	4	3	2	1
Affective Commitment					
I have an emotional attachment to this organization.					
In this organization, I get good treatment.					

Continuance Commitment
I consider still working at this organization.
I consider all the losses if I stop working at this organization.
Normative Commitment
Loyalty that I show as a moral obligation.
I rejected offers of other types of work elsewhere.