



"GREEN MINDS AT WORK: INVESTIGATING THE INTERACTION OF PSYCHOLOGICAL CLIMATE, MOTIVATIONAL STATES, AND ENVIRONMENTAL KNOWLEDGE IN DRIVING EMPLOYEE GREEN BEHAVIOR"

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Abstract

This study investigates the relationship between green psychological climate and employee green behavior in the hospitality sector of Pakistan by examining the mediating role of motivational states and the moderating role of environmental knowledge. Growing environmental concerns and the increasing demand for sustainable hospitality practices have encouraged organizations to adopt environmentally responsible strategies. However, the effectiveness of such initiatives largely depends on employees' willingness to engage in environmentally friendly behavior at the workplace. Drawing upon contemporary environmental management literature, this study proposes that a positive green psychological climate enhances employees' internal motivational states, which subsequently encourage employee green behavior. Furthermore, the study argues that employees possessing greater environmental knowledge are more likely to translate organizational green values into practical green actions. The study focuses on employees working in hotels and hospitality organizations across major cities of Pakistan. A quantitative research approach is proposed, and data are collected through structured questionnaires distributed among hospitality employees. Statistical techniques such as Structural Equation Modeling (SEM) are utilized to test the hypothesized relationships among the variables. The findings indicate that green psychological climate significantly promotes employee green behavior both directly and indirectly through motivational states. In addition, environmental knowledge strengthens the relationship between green psychological climate and motivational states, highlighting the importance of employee awareness regarding environmental sustainability. The study contributes to the growing body of green human resource and environmental management literature by providing empirical evidence from the Pakistani hospitality sector. The findings offer practical implications for hospitality managers seeking to improve sustainable workplace practices through motivational and knowledge-based strategies.

Keywords: Green Psychological Climate, Motivational States, Environmental Knowledge, Employee Green Behavior

Introduction

The integration of sustainable concepts in the hospitality sector has become a crucial element for organizational effectiveness (Mahran et al., 2025). A green psychological climate signifies workers' shared perception that their business prioritizes environmental values and supports sustainable initiatives (Zafar et al., 2025). In hotels, restaurants, and tourism services, such an environment fosters a collective sense of responsibility for sustainability, encouraging staff to align their behaviors with environmental organizational objectives (Showkat & Nagina, 2025). This milieu significantly influences employees' environmentally conscious behaviors,

including waste reduction, energy saving, recycling, and the advocacy of eco-friendly services to customers (Showkat & Nagina, 2025). These practices are crucial for enhancing the sector's reputation, reducing operational costs, and meeting the rising expectations of environmentally conscious customers (Yanan & Rafiq, 2025). The correlation between temperature and behavior is often mediated by motivational states. Employees who perceive strong corporate endorsement of environmental measures are more likely to exhibit intrinsic desire, dedication, and empowerment to contribute significantly (Wang et al., 2025). Motivation transforms corporate policies into individual behaviors, ensuring that sustainability is both an official agenda and a personal priority for individuals (Tessema, 2025).

Moreover, environmental information serves as a moderator in this relationship. Employees with enhanced knowledge and understanding of environmental issues are more proficient at transforming driven sentiments into substantial actions (Zong & Guan, 2025). In the hospitality sector, skilled and knowledgeable personnel may more effectively implement sustainable practices, hence enhancing environmental performance and customer satisfaction (Mahran et al., 2025). The interplay among green psychological climate, motivating emotions, and environmental knowledge is essential for promoting employee green behavior, hence improving sustainability in the hotel sector.

In today's environmentally conscious era, the hotel business is at the forefront of both the challenges and opportunities in incorporating sustainability into corporate culture and operations (Showkat & Nagina, 2025). Hotels, resorts, and restaurants are increasingly recognizing that a green psychological climate—employees' shared conviction that their workplace prioritizes and actively supports environmental sustainability—is crucial for promoting pro-environmental behaviors (Iqbal et al., 2025). A robust green psychological environment bolsters corporate legitimacy and lays the groundwork for fostering substantial employee green behaviors, such as waste minimization, energy conservation, recycling, and proactive guest education on sustainable practices (Ali et al., 2025).

Numerous studies have demonstrated a strong association between a sustainable psychological environment and employee eco-friendly behavior. Zafar et al. (2025) and Elsamien et al. (2025) found that individuals who see their firm as environmentally committed are more inclined to modify their behaviors accordingly. Saleem et al. (2020) recently corroborated this connection across many organizational contexts, including textile and education in Pakistan (Parveen et al., 2025; Sahar et al., 2025) findings that are likely relevant to the hotel sector due to similar institutional procedures and cultural norms.

However, acknowledging a green climate does not automatically lead to ecologically sustainable behavior. Motivational states act as a crucial intermediate, linking organizational environment and employee conduct. When employees internalize corporate principles of environmental stewardship, they foster intrinsic motivation, a heightened sense of accountability, and a positive psychological attitude towards sustainability-related responsibilities (Alshahrani et al., 2025). This intrinsic incentive drives individuals to adopt ecologically friendly activities, not only for professional compliance but as meaningful contributions. The theory of planned behavior (Ajzen, 1991) asserts that, even with favorable normative beliefs, the alignment of motivated intention is essential for enabling action. Environmental knowledge functions as a moderator, introducing complexity to this dynamic. Environmental knowledge refers to employees' understanding of ecological issues, including energy conservation techniques and effective waste management practices (Basheer et al., 2025). Research suggests that such knowledge allows employees to effectively address their motivational drives; without adequate comprehension, motivation may remain vague or

misplaced (Thanh & Cong, 2025). Knowledge-based competence alleviates cognitive barriers and enhances self-efficacy, enabling motivated employees to translate intent into tangible ecologically sustainable behaviors (Camacho et al., 2025).

This controlled mediation approach is especially relevant in the hospitality sector. Frontline hotel and restaurant staff often operate under strict deadlines; without enough knowledge, even motivated professionals may struggle to implement sustainable practices in fast-paced service settings (Chanie et al., 2023). In contrast, employees who are both driven and well-versed in environmental protocols—such as proper recycling techniques or energy saving strategies—can seamlessly incorporate sustainability into routine operations (Amar, 2024). This notion is observed in emerging hospitality studies in Pakistan. A recent research examined the impact of ethical climate on employee eco-friendly behavior in the hospitality sector, utilizing motivational states as a mediator and environmental knowledge as a moderator (Sarwar et al., 2025). This study shown that motivation significantly mediated the relationship between ethical climate and green behavior, whereas environmental knowledge enhanced the strength of this mediation. The term "green psychological climate" is not explicitly used; yet, the notion corresponds with the fundamental ethical and environmental values that underpin organizational climate (Sarwar et al., 2025).

The notion underscores that in hospitality settings, cultivating a sustainable atmosphere is crucial but insufficient; augmenting motivation and equipping staff with relevant knowledge are equally important. A hotel dedicated to sustainability that provides comprehensive environmental training, encourages active participation via acknowledgment, and upholds supportive standards is well positioned to foster consistent eco-friendly practices among employees.

Research Objective

This research aimed to ascertain if characteristics such as motivational moods and organizational resilience under ethical leadership are critical drivers in evaluating workers' green behavior inside the organization. This research sought to examine the direct impact of ethical leadership on the specified employee green behavior outcomes. It specifically attempted to demonstrate how ethical leadership, via the intermediary roles of regulated and autonomous motivation, fosters positive employee behavior.

Specific objectives are

- To find out the empirical examination of the relationship between green psychological climate and employee's green behavior at work.
- To find out the moderating role of the environmental knowledge between the green psychological climate and employee's green behavior.
- To find out the mediating role of motivational states between the green psychological climate and employee's green behavior.

Research Questions

The following are the research question of the study

- Is there a relationship between green psychological climate and employee's green behavior at work exist?
- Is there a moderating role of environmental knowledge exist between the green psychological climate and employee's green behavior?
- Is there a mediating role motivational states exist between the green psychological climate and employee's green behavior?

Literature Review

Green Psychological Climate

Recent hospitality research establishes that cultivating a strong Green Psychological Climate (GPC) is essential for encouraging employee green behavior (EGB). In hotel settings, GPC translates leadership directions and policies into unified standards that foster conservation, recycling, and environmentally efficient service practices (Elshaer et al., 2025). A multi-site study in Pakistan's hospitality sector revealed that a psychologically "green" climate mediates the effect of environmental-specific ethical leadership on environmentally responsible behavior, underscoring the climate's crucial role in converting leadership intent into frontline actions (Sarwar et al., 2025). Research in Bangladesh's hospitality sector suggests that perceived organizational support for the environment fosters employee green behavior via a green work climate and employee environmental commitment, highlighting the climate pathway as a valid explanatory mechanism (Rubel et al., 2025). These data collectively demonstrate GPC as the primary social indicator that converts formal sustainability into quotidian behavior. Recent contributions extend findings beyond behavioral frequency to include psychological and performance implications. A 2025 study in hotels linked employees' perceptions of their organization's "green intellectual capital" to workplace flourishing and favorable attitudes towards sustainability, indicating that climate-aligned knowledge assets and practices can energize employees and reinforce environmental norms (Ahmad et al., 2025). Parallel hospitality studies associate leadership styles with environmental outcomes through climate: ecologically oriented servant leadership enhances organizational citizenship for the environment by fostering green psychological resources that align with, and likely reinforce, GPC (Shahbaz & Malik, 2025). Studies in tourism and hospitality demonstrate that green inclusive leadership fosters green creativity via a green psychological climate and engagement, establishing climate as a sequential mediator in the leadership-sustainability relationship (Al-Romeedy et al., 2025).

Recent evidence suggests that GPC amplifies voluntary green behaviors by increasing "green satisfaction," with green values further augmenting this impact (Al-Romeedy et al., 2025). While not exclusive to hotels, these ideas are readily applicable to high-contact service environments. A forthcoming research in hospitality for 2025 links green human resource management practices to environmentally sustainable workplace behaviors through a psychological green atmosphere and employee green ideals, suggesting that HR systems may deliberately foster an environment to improve environmentally friendly behaviors (Kaur et al., 2025). Moreover, studies in the Turkish hotel industry indicate direct positive effects of GPC on employees' ecologically sustainable organizational behavior, providing additional cross-context validation (Hawela, et al., 2025).

The issue has progressed methodologically: recent bibliometric analyses outline EGB knowledge structures from 2012 to 2023, emphasizing climate, leadership, and HRM as primary theme clusters—areas where GPC constantly appears as a significant node (Zhang et al., 2024). The primary result is clear: GPC functions as both a mediator and an enabling framework that converts leadership, HRM, and knowledge resources into lasting sustainable practices and advantageous labor circumstances in hotels (Abdo & Edgar, 2025). Future employment in hospitality may improve causal influence by incorporating climate-focused human resource systems, leadership development, and environmental training—assessed through longitudinal and multi-level methodologies—to examine the distribution of GPC across departments and the evolution of guest-facing practices.

Employee Green Behavior

EGB originates from pro-environmental behavior, referring to actions that protect and improve the environment (Norton, 2016). Pro-environmental conduct relevant to the workplace and applicable to employees is designated as EGB (Ones & Dilchert 2012). Ones and Dilchert first proposed this concept and defined EGB as environmentally beneficial conduct demonstrated by employees inside an organization (Ones & Dilchert 2012). EGB may be categorized into its dimensions in two distinct manners. Ones and Dilchert (2012) classify EGB into five separate categories depending on behavioral outcomes: (1) sustainable work practices, (2) resource conservation, (3) influencing others, (4) proactive participation, and (5) harm avoidance. However, these five categories are not mutually exclusive; a single action may simultaneously belong to two groups due to the vague and unclear criteria (Norton et al. 2016). Norton et al. (2016) classified EGB into two categories: required EGB and discretionary EGB. Required EGB refers to the environmentally responsible acts performed by employees as part of their job duties, similar to task execution; it directly or indirectly aligns with the organization's strategy and objectives. The essential EGB of a standard employee at a manufacturing facility may include compliance with organizational policies, choice of alternatives, and development of environmentally sustainable products (Norton et al., 2016). Volunteer EGB refers to individual environmentally responsible acts that exceed organizational obligations and approximate organizational citizenship behavior, such as volunteer activities. The environmental conduct of an average employee at a manufacturing plant may include actions such as employing double-sided printing, turning off lights before leaving, and promoting eco-friendly habits among colleagues (Norton et al., 2016).

Motivational States (Controlled and Autonomous)

Self-determination theory (SDT) is a theoretical framework that clarifies the motivating mechanisms behind human self-determination behavior. Self-Determination Theory posits that the characteristics of an individual's motivation significantly affect behavior (Deci & Ryan 2000). Self-Determination Theory classifies motivation into two categories: controlled motivation and autonomous motivation. Controlled motivation refers to an individual's inclination to engage in particular behaviors due to internal (guilt) or external (imposed duties) constraints. Conversely, autonomous motivation refers to an individual's impetus to engage in particular acts arising from own will and free choice, shaped by interests and personal beliefs. These impulses are not mutually exclusive and may occur simultaneously. Mandatory EGB and discretionary EGB are influenced by different motivational factors (Norton et al., 2016). Mandated EGB may be affected by controlled incentive, but voluntary EGB may be influenced by autonomous motivation. Gagné and Deci (2005) assert that people's diverse behaviors arise from controlled and autonomous motivation. Typically, employees require oversight when performing essential yet tedious tasks, dependent on expected results like as compensation and career progression (Gagné and Deci 2005; Norton et al. 2016). Thus, those demonstrating controlled motivation feel a sense of pressure and duty (Deci & Ryan 2000). As a result, individuals driven by controlled motivation encounter the pressures and constraints dictated by the organization's requirements, leading to potential involvement in obligatory EGB. Employees exhibiting autonomous motivation engage in actions motivated by their interests (Deci & Ryan 2000). Consequently, personnel driven by autonomous motivation regard EGB as important and are predisposed to undertake ecologically sustainable behaviors; thus, the next stage may entail involvement in voluntary EGB.

Environmental Knowledge

Environmental knowledge (EK) in hospitality refers to employees' factual understanding and practical skills regarding environmental issues and sustainable practices, including energy and water conservation, waste segregation, recycling methods, and eco-friendly service options for guests (Farrukh et al., 2022). A recent study posits that emotional knowledge (EK) is not only contextual information but a crucial competency that affects the efficacy of sustainability policies in workplace behavior (Chaihanchai & Anantachart, 2023). In hotel settings, EK improves employees' self-efficacy and perceived competence, hence reducing the cognitive gap between intention and action, which enables motivated staff to effectively execute green operations under service pressure (Kong & Jia, 2023).

Empirical study in the hotel business has advanced beyond simple correlations to investigate the boundary and conditional roles of EK. Experiments based on scenarios with hotel employees indicate that emotional knowledge (EK) can affect the intensity of psychological processes, such as moral elevation or motivation, that promote pro-environmental behavior: employees with higher EK are more skilled at converting pro-environmental feelings into consistent green actions than those with lower EK (Raza & Khan, 2022).

Complementary field studies suggest that EK amplifies the effects of green leadership and green HRM on employee green outcomes, with training and knowledge dissemination operationalizing leadership signals and HR practices at the frontline (Sarwar et al., 2025). Intervention studies and practice-oriented publications emphasize training design and information sharing as the primary methods for cultivating EK. Daily training and tailored micro-learning modules for specific positions (housekeeping, food and beverage, front desk) have led to immediate improvements in the implementation of appropriate eco-procedures and, through repetition, have fostered better habit formation (Zeng et al., 2023). Research on the transmission of green information in hotels highlights peer-to-peer learning and management coaching as cost-effective enhancements to formal training, especially when combined with on-the-job prompts and accessible job resources (Putri & Hayu, 2024).

Recent literature illustrates methodological progress: multi-level designs examine emotional knowledge (EK) at individual and unit levels; experimental and diary methodologies record intra-personal changes following training; and bibliometric analyses underscore EK, leadership, and organizational climate as interconnected themes affecting employee green behavior in hospitality research (Zhang et al., 2025). The synthesis outlines a clear directive for managers: invest resources in role-specific experiential knowledge (EK) instead of general awareness, integrate this knowledge into standard operating procedures, and combine training with motivational incentives and leadership support to enhance its implementation in both guest-facing and back-of-house operations.

Research Hypothesis:

The following are the hypothesis of the study

H1: Green Psychological Climate positively correlated with Employees Green Behavior.

H2: Environmental knowledge moderates between the green psychological climate and Employees Green Behavior.

H3: Motivational States mediates between Green Psychological Climate and Employees' green Behavior.

This research will enhance the existing literature on green psychological climate in several aspects. This study will enhance the understanding of the link between green psychological

climate and employees' green behavior, encompassing environmental awareness and motivational moods. Although prior research have examined these direct influencing ties, evidence from the Pakistani service sector remains scarce. This is valuable for examining the generalizability of the green psychological climate. The importance of this study is amplified by our discovery of the boundary condition of environmental awareness in the link between green psychological climate and environmental knowledge. Our findings indicate that environmental awareness enhances the impact of a green psychological climate, which in turn influences employees' green behavior. Consequently, we experimentally validated that prior studies elucidating the influence of motivational states on employees' eco-friendly intentions and actions are accurate. This research enhances current understanding by validating motivational states in developing nations as a boundary condition influencing the indirect effect of green psychological climate factors on employee green behavior, mediated by motivational states and moderated by environmental knowledge.

Mediating role of Motivational States

The hotel industry's transition to environmental sustainability increasingly depends on employees' daily actions, such as energy saving, trash reduction, and eco-friendly service provision. A green psychological climate signifies employees' shared perceptions that their organization genuinely emphasizes environmental responsibility, integrates sustainability into its culture, and expects staff to participate in behaviors that advance ecological goals (e.g., recycling, energy conservation) (Sharif & Malik, 2025). This environment affects employees' views on corporate objectives and signifies whether eco-friendly behavior is recognized, supported, and incentivized.

A pleasant psychological atmosphere alone does not naturally motivate employees to adopt sustainable practices. Instead, it influences employees' motivational states, which function as the psychological mechanism that transforms organizational signals into concrete ecologically sustainable actions (Zhou & Zhang, 2025). Motivational states encompass psychological processes such as intrinsic motivation (the pleasure obtained from participating in environmentally friendly activities), identified regulation (the personal valuation of ecological goals), and a moral need to act sustainably (Jnaneswar, 2023). Employees who acknowledge a strong green climate—demonstrated by observable eco-policies, leadership communication, or sustainable HR practices—are more likely to embrace environmental goals and show a heightened willingness to endorse sustainability outcomes (Sarwar et al., 2025). The alignment between company culture and individual motivation has been shown to enhance workers' readiness to adopt green activities beyond mere compliance.

Empirical evidence suggests that motivational states partially mediate the relationship between climate and pro-environmental behavior. Research in Pakistan's accommodation sector indicated that positive perceptions of organizational climate improved employees' motivation, which significantly forecasted environmentally responsible behaviors, including voluntary resource conservation and proactive eco-initiatives (Sarwar et al., 2025). This mediation suggests that the impact of a green environment on behavior is most pronounced when employees have a psychological incentive to engage; perceptions of climate evoke motivational states that drive actual engagement in environmentally friendly practices.

The mediating role of motivation aligns with comprehensive theoretical frameworks such as the Ability-Motivation-Opportunity (AMO) model, which posits that motivation is a crucial determinant of behavior when employees possess both supportive environments and the psychological drive to participate (Younis & Hussain, 2023). Within the framework of Pakistani hospitality, where guest interactions and resource management are paramount,

employees demonstrating elevated motivational levels are more predisposed to integrate environmental practices into their routines, take initiative in eco-friendly endeavors, and inspire colleagues by modeling sustainable behavior. In summary, motivational moods function as the psychological process that transforms a positive environmental perspective into concrete eco-friendly staff behaviors. Without this fundamental motivational force, views of climate may remain superficial and fail to foster consistent ecologically sustainable practices among personnel.

Moderating Role of Environmental Knowledge

In the hotel industry, a green psychological climate signifies the collective perception among employees that their organization really emphasizes environmental sustainability through its policies, practices, and leadership commitment to eco-friendly goals (Swathi & Johnpaul, 2025). This atmosphere may affect employees' attitudes and mental readiness to engage in environmental projects (e.g., resource conservation or trash reduction). However, employees' motivational states—such as intrinsic interest in sustainability, personal conviction about environmental outcomes, and internalized ecological values—are essential in determining whether green climate perspectives lead to proactive green actions (Abdou, 2025).

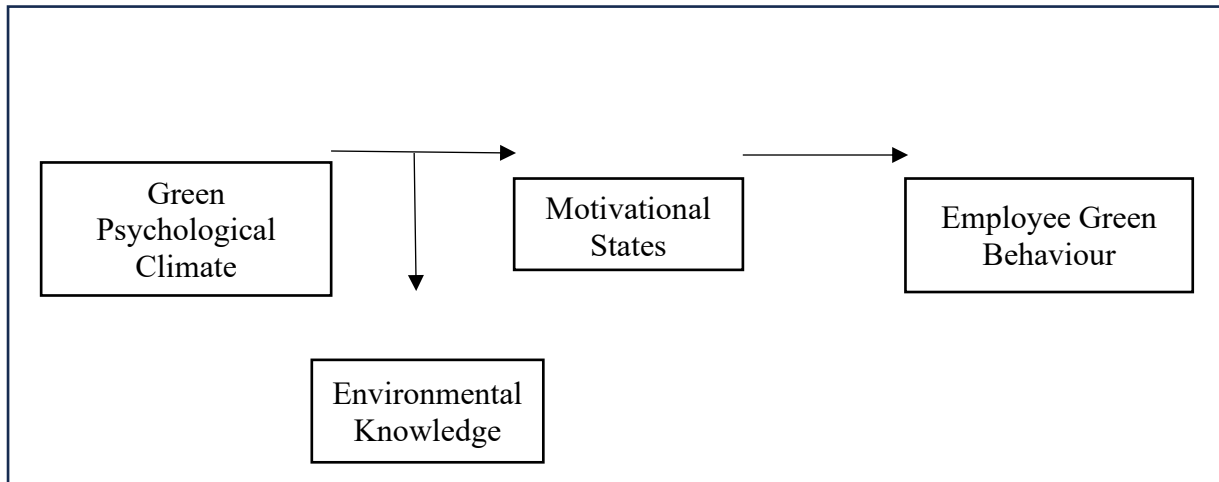
Environmental knowledge, defined as employees' understanding of environmental issues, ecological concepts, and specific sustainability practices, may affect the influence of green psychological climate on motivational moods (Sarwar et al., 2025). In organizations with personnel possessing significant environmental knowledge, the relationship between a green climate and motivation is generally more evident. Informed employees are more skilled at reading and assimilating climate signals, hence enhancing their propensity to view company sustainability indicators as personally relevant and actionable. When employees understand the reasoning and processes behind sustainability standards, they are more likely to have a strong personal drive to participate in environmentally friendly practices. Consequently, environmental knowledge enhances the degree to which climatic impressions stimulate a psychological inclination towards environmental engagement (Naz et al., 2023).

Empirical data supports this interaction effect. A research in Pakistan's hospitality sector indicated that staff with more environmental awareness had stronger motivational responses to climate cues, thereby enhancing their likelihood of engaging in environmentally responsible behaviors (Sarwar et al., 2025). The elevation of environmental awareness significantly amplified the positive effect of a green psychological climate on motivational moods compared to when knowledge was reduced. This suggests that environmental knowledge serves as a psychological catalyst—employees who understand environmental issues are more sensitive to organizational climate cues and more inclined to convert those cues into intrinsic or personally valued motivations. Environmental knowledge supposedly improves employees' cognitive evaluation processes. It improves comprehension of the importance and feasibility of sustainability initiatives, strengthens self-efficacy about environmental responsibilities, and aligns corporate communications with individual value systems (Tao, 2025).

This relationship is vital in the hospitality industry, since everyday operations involve several environmental factors, including energy management, trash disposal, and guest engagement in sustainability efforts (Sarwar et al., 2025). Without enough knowledge, even a strong green environment may not fully elicit motivating emotions, since employees may lack the understanding required to connect environmental signals with meaningful action. In summary, environmental knowledge affects the relationship between green psychological climate and motivational states by enhancing employees' capacity to interpret, internalize, and

psychologically respond to sustainability signals, thereby fostering increased motivation for green behavior in Pakistan's hospitality sector (Sarwar et al., 2025).

Theoretical Model



Methodology

Pakistan is currently under significant examination for environmental degradation resulting from its accelerated industrial expansion (Abid & Aziz, 2025). As to the Environmental Performance Index (2020), Pakistan is positioned 169th in terms of environmental performance. This study seeks to examine the influence of ethical atmosphere on employee green behavior (EGB), as well as the moderating effect of environmental awareness. This study employed a quantitative methodology to analyze the hotel industry in Pakistan. The research employed a positivist methodology. The positivist paradigm was employed to ascertain the correlations between the variables. A meticulously crafted questionnaire is utilized to collect and assess data. The primary objective of this study is to ascertain the core issue, develop hypotheses, and subsequently predict an outcome that aligns with a law-like generalization. The quantitative method is employed to enhance result precision and facilitate statistical analysis. The quantitative approach is characterized by its objectivity, neutrality, accuracy, and systematic technique. This research also utilizes reliability and validity assessments (Michener & Sokal, 2017). Moreover, the utilization of the quantitative technique is advantageous as it provides empirical and definitive data (Brannen, 2017). Additionally, it is crucial to determine the regression and correlation between the variables. Additionally, a supplementary evaluation is conducted to mitigate the influence of common method bias (CMB) during the data collection and analysis phases. The survey instrument consists of two distinct components. The introductory article provides comprehensive information on all factors, but the subsequent document concentrates solely on the demographic characteristics of the research participants. The data has been gathered from various sectors of the hotel industry in Pakistan. This research uses Structural Equation Modelling (SEM) as its methodology. Kurtaliqui et al. (2024) categorized SEM into two distinct methodologies: variance-based SEM and covariance-based SEM. This study employs covariance-based SEM with AMOS software to facilitate data collection and analysis. AMOS is advantageous due to the use of several estimators, including ordinary least squares (OLS) regression, as demonstrated (Henseler, 2017).



Measures

The GPC measuring scale utilized the five-item scale developed by Norton et al. (2014). The instrument evaluates the items using five Likert scales. The scale includes items such as, “All employees are encouraged to conserve energy in the workplace.” The management stress the reduction of scrap during manufacturing and strive to minimize waste and regulate dangerous substances. The organization with which I am associated possesses a formalized and written code of ethics. The acquisition and comprehension of environmental information. The researchers employed a three-item environmental knowledge measure created by Fawehinmi et al. (2020). The five-point Likert scale is utilized to assess the example item, “I possess knowledge regarding the issue of environmental damage resulting from human activity.” We utilized a 12-item scale created by Meyer and Gagne (2010) to evaluate motivational moods. The scale consists of four unique variables: internal motivation, external motivation, intrinsic motivation, and extrinsic motivation. This study used a comprehensive scale that considers the aspects together rather than separately. The questionnaire was evaluated with a 5-point Likert scale, ranging from the response choice "never" to "frequently." The assessment of employee Green behavior is performed with the twelve-item scale established by Bissing-Olson et al. (2013). All items are evaluated with a five-point Likert scale. The tasks are executed in an ecologically sustainable manner.

4.1 Demography of the study

Table 1: Demographical characteristics of respondents

Demographics		N	%
Organization	Four Star	120	48.0
	Five Star	130	52.0
	Total	250	100.0
Gender	Female	58	23.2
	Male	192	76.8
	Total	250	100.0
Qualification	Bachelor	85	34.0
	Master	138	55.2
	Other	27	10.8
	Total	250	100.0
Designation	Front Line Job	104	41.6
	Middle Level Job	120	48.0
	Top Level Job	26	10.9



	Total	250	100.0
Department	Management	192	66.2
	Finance	98	33.8
	Total	290	100.0
Total Experience	1-5 year	42	16.8
	6-10year	72	28.8
	11-15 year	52	20.8
	16-20 year	70	28.0
	above 20 year	14	5.6
	Total	250	100.0

The table delineates the principal demographic attributes of the 250 respondents. Regarding organizational classification, a little greater proportion of respondents were employed in five-star hotels (52%) compared to four-star hotels (48%), signifying equitable representation from both categories of enterprises. The gender distribution indicates a male-dominated sample, including 76.8% male and 23.2% female responses. The bulk of participants own a master’s degree (55.2%), followed by those with a bachelor’s degree (34%), and a lesser percentage (10.8%) hold other credentials. This indicates a rather well-educated workforce within the examined firms. Regarding job categorization, the majority of respondents hold middle-level positions (48%), while 41.6% occupy front-line roles and 10.4% are in top-level positions, indicating extensive organizational representation across hierarchical levels.

The departmental distribution reveals greater involvement from management than from finance departments; nonetheless, the totals provided for this section deviate from 250, indicating a potential reporting issue. A significant proportion of respondents possess 6–10 years (28.8%) and 16–20 years (28%) of overall work experience, followed by 11–15 years (20.8%) and 1–5 years (16.8%). Merely 5.6% own over 20 years of experience. The sample has a varied composition for organization type, gender, education, work function, department, and experience.

4.2 Data Normality Analysis

Table 2: Data skewness, mean, and kurtosis

Variables	Mean	St. Deviation	Skewness	Kurtosis
Green Psychological Climate	3.9848	0.64944	-0.73	0.176
Environmental Knowledge	3.9347	0.71865	-1.356	2.627
Motivation States	3.9668	0.51549	-0.618	0.662
Employee Green Behavior	3.9104	0.53941	-0.747	1.169

The table displays the descriptive statistics of the research variables, encompassing mean, standard deviation, skewness, and kurtosis. The average values of all variables approximate four on the measuring scale, signifying that respondents predominantly exhibited strong agreement with assertions about green psychological atmosphere, environmental

knowledge, motivating states, and employee green behavior. The green psychological climate has the highest mean score (3.98), closely followed by motivating feelings (3.97) and environmental knowledge (3.93), indicating that employees perceive substantial environmental support from their employers and feel individually motivated to engage in green actions. The standard deviations vary from 0.51 to 0.72, indicating a modest dispersion of answers without significant variability. The skewness values for all variables are negative, indicating a minor skew toward higher scores, suggesting that a greater number of respondents chose options at the agreement end of the scale. Kurtosis levels are adequate, indicating no significant deviation from normality; nevertheless, environmental knowledge exhibits considerably greater kurtosis, signifying a more peaked distribution. The descriptive results demonstrate consistent and favorable views toward environmental activities, sufficient knowledge, and good green behavioral inclinations among employees, validating the data's appropriateness for further statistical analysis.

Table 3: Reliability Analysis

Variable	Cronbach alpha	No of items
Green Psychological Climate	0.761	05
Environmental Knowledge	0.783	03
Motivation	0.796	12
Employee Green Behavior	0.785	12
Overall reliability	0.899	32

The table presents the internal consistency reliability of the research constructs as measured by Cronbach's alpha, along with the item count for each scale. All variables have alpha values significantly beyond the standard threshold of 0.70, signifying adequate reliability. The Green Psychological Climate exhibits an alpha coefficient of 0.761 across five items, indicating internal consistency among the measures of this construct. Environmental Knowledge, assessed by three questions, exhibits an alpha of 0.783, indicating satisfactory internal consistency despite the limited number of statements. Motivation demonstrates the greatest reliability among individual constructs, with an alpha of 0.796 across twelve measures, indicating robust coherence across its indications. Employee Green Behavior exhibits strong dependability, with an alpha coefficient of 0.785 for twelve items. The comprehensive dependability of the complete instrument, consisting of thirty-two items, is 0.899, signifying exceptional internal consistency of the entire questionnaire. The results indicate that the measuring scales employed in the study are reliable and appropriate for further statistical analysis.

TABLE 4: CORRELATION ANALYSIS

Items	EC	EK	MOTIVATION	EGB
EC	1			
EK	.465**	1		
MOTIVATION	.579**	.586**	1	
EGB	.489**	.357**	.512**	1

The table displays the correlation coefficients among the four research variables: Environmental Climate (EC), Environmental Knowledge (EK), Motivation, and Employee Green Behavior (EGB). The diagonal displays the number "1" for each variable, signifying the

perfect correlation of a variable with itself. The off-diagonal numbers denote the interrelationships among various variables, while the double asterisks signify that all reported correlations are statistically significant at a standard threshold. EC exhibits a modest positive connection with EK (.465), indicating that when employees perceive a favorable environmental climate, their environmental knowledge is likely to be elevated. Environmental consciousness (EC) is positively correlated with motivation (.579) and environmentally green behavior (EGB) (.489), indicating that beneficial environmental policies inside the firm are linked to increased motivation and heightened green behavior among personnel. Environmental knowledge (EK) exhibits a moderate correlation with motivation (0.586), indicating that personnel with better environmental awareness are more driven to engage in environmental projects. EK maintains a positive correlation with EGB (.357), but comparably smaller, suggesting that knowledge influences green behavior while potentially interacting with additional variables. Motivation exhibits a significant positive link with EGB (.512), indicating that motivated individuals are more inclined to participate in environmentally sustainable practices at work. The correlations demonstrate significant and positive relationships among all principal constructs.

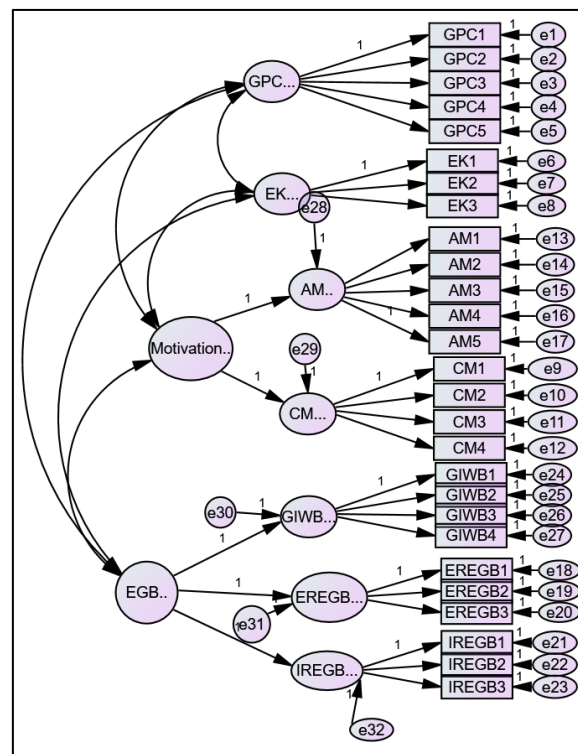


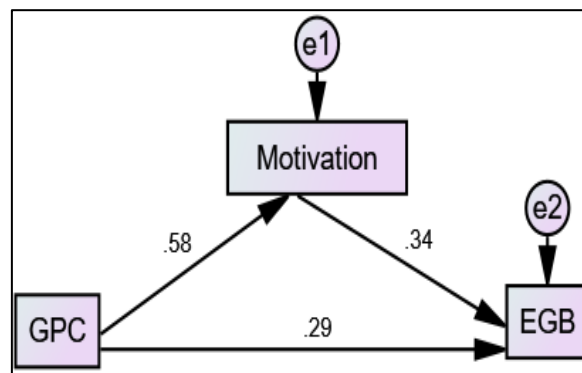
TABLE 5: Fitness Summary's

Model	Hypothesized	Thresholds
CMIN/DF	2.780	Less than 3
CFI	0.919	Near to 0
AGFI	0.915	Greater or equal to 0.90
GFI	0.910	Greater or equal to 0.80
RMR	0.044	Greater or equal to 0.90
RMSEA	0.033	Less than 0.080

The table delineates the model fit indicators employed to assess the sufficiency of the suggested structural model. The chi-square to degrees of freedom ratio (CMIN/DF) is 2.780, which is below the recommended threshold of 3, signifying an adequate model fit. The Comparative Fit Index (CFI) is 0.919, indicating a robust comparative fit of the model in relation to a null model. Both AGFI (0.915) and GFI (0.910) satisfy or surpass their specified criteria, indicating that a significant part of variance and covariance in the data is accounted for by the model. The Root Mean Square Residual (RMR) is 0.044, indicating a minimal average discrepancy between observed and anticipated covariances. The Root Mean Square Error of Approximation (RMSEA) result of 0.033 is well below the specified threshold of 0.080, signifying a tight approximate fit and minimum error of approximation within the population. The amalgamation of these indicators indicates that the proposed model offers a suitable and statistically valid depiction of the observed data.

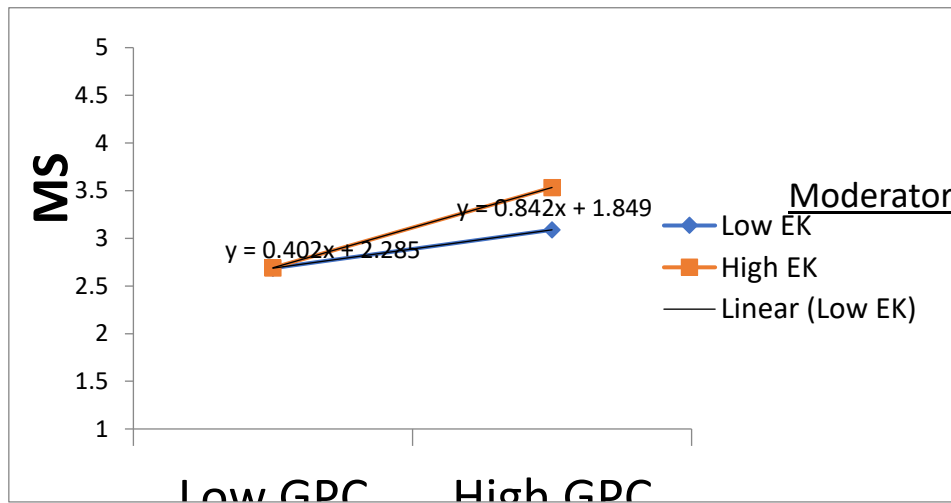
4.3 Mediation

This study employed the bootstrapping approach for mediation analysis with AMOS software. The mediator is a model component that facilitates the elucidation of the relationship between the variables. The mediation study demonstrated a statistically significant direct correlation between the independent variable, GPC, and the dependent variable, EGB. The beta coefficient (β) for this association was 0.390, accompanied by a p-value of 0.001. The correlation between the independent variable (IV) and dependent variable (DV) in the context of a mediator is statistically significant, exhibiting a beta coefficient of 0.190 and a p-value of 0.001. The statistical analysis indicates a significant indirect relationship between the variables, with a coefficient of $\beta=0.290$ and a p-value of $p=0.001$. The importance of the correlations among the variables persists, irrespective of the existence of a mediator. This conclusion indicates the existence of partial mediation among the variables.



4.4 Moderation

This study investigates the moderating impact utilizing AMOS software and explains the findings through graphical representations from the stat-tool wiki. The unstandardized regression coefficients (B) were calculated for all variables. The initial variable, GPC (IV), demonstrates an unstandardized regression coefficient of $B1 = 0.311$ ($p = 0.002$). The second variable, EK (moderator), has an unstandardized regression coefficient of $B2 = 0.112$ ($p = 0.000$). The third variable in the study denotes the interaction of the independent variable of GPC, the dependent variable of Motivation, and the moderator of EK. The unstandardized regression coefficient for this interaction is $B3 = 0.110$, which is statistically significant with a p-value of 0.000. The findings of this study demonstrate that the utilization of EK positively influences the link between EC (independent variable) and Motivation (dependent variable).



5. Conclusion

Environmental knowledge is essential for promoting ecologically responsible behavior in businesses, as demonstrated by prior research by Raza and Khan (2022) and Safari et al. (2018). This study seeks to enhance the current knowledge base by investigating the influence of green psychological climate on workers' environmentally friendly behavior within Pakistan's hospitality sectors, in response to the issues highlighted by Tian et al. (2020) and Ahmed et al. (2022) about organizational climates. This study seeks to investigate the influence of motivational states in mediating the relationship between green psychological climate and employee green behavior. We examined the influence of environmental awareness on individuals' motivation in the workplace. This work has several theoretical consequences. The primary subject concerns the literature on green psychological climate, particularly highlighting the repercussions of ecologically detrimental conduct. Nonetheless, the current study provides a complete and analytical examination of the influence of climates on employee green behavior, a subject that has not been extensively explored in prior research (Aboramadan, 2022; Ahmed et al., 2022). The research findings indicate that the ethical context significantly and positively affects employee green behavior. The identified correlation corresponds with the Social Cognitive Theory (SCT) as articulated by Bandura (2006). Moreover, environmental awareness has been shown to elevate employee engagement within the corporate context, hence favorably influencing the overall quality of life for employees. This relates to promoting environmentally responsible behavior among employees. Moreover, our research examines a significant concern highlighted by Ahmed et al. (2022) by exploring the influence of a green psychological environment on the behavioral outcomes of followers in an organizational context. Furthermore, the study by Fawehinmi et al. (2020) provides a comprehensive examination of the impact of environmental knowledge on ethical climate and motivational states. Furthermore, our research revealed a mediating mechanism, namely the influence of motivated mood, on the link between EC and EGB. By enhancing our understanding of the factors that govern this organizational environment. This study identified environmental awareness as a crucial factor influencing the effect of green psychological climate on employee empowerment in advancing ecologically friendly activities. This conclusion indicates that environmental knowledge inside a company moderates the ethical climate, so elevating employee motivation and eventually improving work performance.



This research analyzes the implications of the findings for organizational growth and knowledge acquisition. Leadership must integrate organizational climates into strategic initiatives to guarantee the organization's long-term survival and sustainability. The pro-environmental and ethical behavior of a boss significantly impacts the green behavior of their subordinates. The findings suggest that CEOs must guarantee the successful implementation of sustainable practices and regulations. To effectively promote pro-environmental behavior and inspire their followers, environmental knowledge must cultivate organizational climates inside their own organizations. These climates exemplify models for others to replicate, motivating citizens to partake in ecologically sustainable practices. Organizations must to contemplate the establishment of staff mentorship programs. To achieve performance targets and cultivate a culture of open communication inside the firm, managers should assess the historical environmental performance of current employees during promotions and when recruiting new staff. The selection and promotion committees are advised to include the candidate's environmental assessment in their evaluation process. Furthermore, the findings of this study possess considerable ramifications for society. It attracts public attention to the socially responsible and ecologically sustainable initiatives pursued by people and organizations. It assists organizational leaders in exhibiting environmentally responsible conduct. This research study highlights the need of individual societal members participating in environmentally sustainable practices to protect the natural environment.

Limitations and future research directions

Notwithstanding its significant implications and scientific rigor, the present investigation reveals specific shortcomings. The identification of cause in the observed associations remains unresolved, despite employing a cross-sectional study approach. The use of a longitudinal research approach can enhance the execution of subsequent investigations. The limited data collection just from Pakistan constrains the applicability of the findings to other national and cultural situations. Future study should broaden data collecting to include multiple nations to examine the influence of cultural differences on English language (EL) results. Furthermore, it would be advantageous to analyze behavioral trends across many cultural contexts, particularly contrasting Western and Eastern nations. In conclusion, our study examined environmental knowledge as the sole mediator of organizational climates and the relationship between green employee empowerment and organizational climates. Jiang et al. (2018) contended that other moderating factors may affect the correlations among these connections. Amrutha et al. (2021) propose that integrating employee green values and environmental knowledge might alleviate the impact of organizational climates on green employee behavior. Future study should explore the mediating and moderating factors that connect ethical atmosphere to employee green behavior. By concluding the discussion with motivational states as a mediator and environmental knowledge as a moderator, our study elucidates the mechanisms, motivations, and conditions under which organizational climates promote employee engagement in environmentally sustainable behaviors within the workplace. We want for our study findings to inspire other researchers to investigate and enhance more complex models by incorporating new moderators and mediators. This endeavor seeks to improve understanding and promotion of pro-environmental behavior within corporate settings.

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