*Article*

# Ethical Leadership and Employee Green Behavior: A Multilevel Moderated Mediation Analysis

**Maria Saleem [1], Faisal Qadeer [1], Faisal Mahmood [1], Antonio Ariza-Montes [2,3,*] and Heesup Han [4]**

[1] Lahore Business School, The University of Lahore, Lahore 54000, Pakistan; mariyasaleem1989@gmail.com (M.S.); mfaisalqr@gmail.com (F.Q.); faisalch62@gmail.com (F.M.)
[2] Management Department, Universidad Loyola Andalucía, 14004 Córdoba, Spain
[3] Facultad de Administración y Negocios, Universidad Autónoma de Chile, Santiago 425, Chile
[4] Department of Hospitality and Tourism Management, Sejong University, Seoul 05006, Korea; heesup.han@gmail.com
[*] Correspondence: ariza@uloyola.es; Tel.: +34-957-222-186

check for updates

**Abstract:** In today's globalized world, it has become challenging for organizations to prevent environmental damage and decay as they are the major contributors to these concerns. Researchers in the field of organizational behavior and sustainable development have been concentrating on the role of corporate leaders in deriving employee green behavior (EGB). Despite a few early attempts in this emerging field, no precise antecedents and mechanisms have been established so far. Accordingly, this research contributes to this emerging debate by examining how and under what conditions ethical leadership affects EGB. This study investigates the impact of ethical leadership on EGB through the mediation of green psychological climate (GPC) and the boundary condition of environmental awareness. This research uses social learning theory to derive hypotheses. This study empirically examines the underlying framework by conducting two surveys with time-based breaks to collect multilevel data from 410 employees working in four private and public sector universities and hospitals in Pakistan. We conducted multilevel path analysis through Mplus and confirmed a statistically significant positive effect of ethical leadership on GPC that ultimately translates to EGB. Further, the contingency of environmental awareness strengthens the indirect impact of ethical leadership on EGB through the mediation of GPC. Our findings reveal various ways by which organizations can strategically focus on employee green behavior, such as saving energy, wastage, and recycling.

**Keywords:** ethical leadership; employee green behavior; green psychological climate; environmental awareness; social learning theory

## 1. Introduction

The worsening of environmental conditions has become a matter of grave concern for the inhabitants of our world, and organizations are one of the primary causes of this frightening situation [1–3]. For this reason, there is a strong need for integrating environmental issues in the policies, procedures, and practices of organizations [4,5]. Organizations across the world are taking initiatives to improve their environmental performance by motivating their employees to participate in eco-friendly behavior [6]. Employee green behavior (EGB) has become an essential and emerging area of research in the subject of organizational behavior (OB) [7]. EGB is environmentally beneficial behavior that employees perform within an organization and refers to a specific form of pro-environmental behavior in work settings [8,9]. Existing research noted that EGB influences the

natural atmosphere and has considerable implications for organizations, their leaders, and employees. For instance, EGB not only helps organizations to accomplish sustainable development goals and to improve environmental performance [10] but also increases the effectiveness and job satisfaction of their leaders and employees, respectively [11].

Thus, considering the valuable consequences of EGB, existing literature concentrates on uncovering its antecedents, such as perceived organizational support [12], organizations' environmental policies [13], employee motivation, conscientiousness, environmental knowledge and awareness [14,15], environmental-specific servant leadership [16], and human resource management practices [17]. Existing research also documents the indirect links by which employees tend to engage in eco-friendly activities and also the formulated mechanisms that may engage employees in green behaviors. It strongly emphasizes their social responsibility toward the protection of the environment. Employees' volunteering, human, and selfless efforts are considered to be more appropriate in dealing with environmental issues.

Despite these investigations, research on the antecedents of EGB is still in its early stages [6,11,17], and this infancy is shoddier in emerging and developing contexts, such as Pakistan. Accordingly, the understanding of mechanisms through which organizations can inculcate EGB is also limited and incomplete [11]. Existing research also remains deficient concerning the boundary conditions and theoretical understandings of how organizations' environmental policies and practices are linked with EGB [11]. Immediate leaders or managers play a vital role in encouraging and motivating employees to become passionate about the protection of the environment, as leaders can evoke emotions in employees [18,19]. However, Robertson [20] reported that existing research remains deficient in explaining how immediate leaders encourage employees to display green behaviors. There have been increasing calls to examine how ethical leadership can relate to followers' perceptions of the organizational context in order to influence their workplace behavior [21]. We noticed that the current EGB research lacks a multilevel perspective. For example, to the best of our knowledge, research measuring ethical leadership at a group-level in the ethical leadership-EGB debate is not available.

Broadly, the present research aims to fill these gaps in the literature by investigating how and under what boundary conditions, ethical leadership can inculcate EGB in organizations. This research seeks to examine how ethical leadership derives EGB through the mediation mechanism of green psychological climate (GPC) and what the contingency effect of employees' environmental awareness to the above-mentioned relationship is.

This research mainly builds on Bandura's social learning theory (SLT) [22] by suggesting that ethical leadership can positively shape EGB. For instance, SLT posits that individuals learn appropriate ways to act through the role modeling process and by observing others. Ethical leaders are legitimate role models for normative behaviors. They can imply thoughts, values, attitudes, and moral behaviors. They can influence employees' perceptions about organizational policies, procedures, and practices regarding environmental sustainability and make some extra effort to maintain GPC. When employees get signals from an organizational climate that the organization welcomes green behaviors, they engage in displaying EGB. Further, environmental awareness can strengthen this relationship, because when environmentally aware employees experience ethical behaviors by their leader, their perceptions and interpretations of their organization's policies regarding environmental sustainability further increase. Therefore, they are more likely to engage in EGB at the workplace. Precisely, this research contributes to EGB and SLT by investigating a new mechanism through which ethical leadership derives EGB with the mediation of GPC. The boundary condition of environmental awareness further enhances the significance of the research. Moreover, this study not only contributes to the empirical body of knowledge on the consequences of ethical leadership but also adds to the OB literature in developing countries where research on GPC, EGB, and environmental awareness is needed more.

## 2. Hypotheses Development

### 2.1. Ethical Leadership and Green Psychological Climate

Ethical leadership is "the demonstration of normatively appropriate conduct through personal actions and interpersonal relationships, and his or her promotion of such conduct to followers through two-way communication, reinforcement, and decision-making" [23]. This conceptualization emphasizes two aspects: a) the *moral person* represents the follower's perception of the leader's traits, character, and altruistic motivation demonstrated through integrity, fairness, and a concern for others; b) the *moral manager* represents the leader's proactive efforts to influence followers' ethical and unethical behavior demonstrated through communicating, rewarding, punishing, emphasizing ethical standards, and role modeling the ethical behavior [23–25].

Leadership is one of the critical antecedents of various facets of organizational climate [26]. At all levels of an organization, leaders play an essential role in modifying and shaping the organizational climate. Leaders set the "ethical tone" of an organization and, therefore, play a vital role in developing an ethical climate [25], i.e., "employees' shared perceptions of their work environment, specifically of formal policies, the procedures that translate these policies into tacit guidelines" [27]. Green psychological climate (GPC), the pro-environmental facet of the organizational climate, refers to "employees' perceptions and interpretations of their organization's policies, procedures, and practices regarding environmental sustainability" [11,27]. There seems to be a positive development in that nowadays, leaders give immense importance to issues of environmental sustainability [8]. In this regard, ethical leaders show great concern for environmental issues. Environmental sustainability is also an ethical issue [18]; therefore, ethical leaders consider it their moral obligation to protect the environment [28].

Social learning theory (SLT) suggests that employees learn appropriate behaviors through "role modeling" and the use of "reinforcement" [22]. Ethical leaders are readily observable, model appropriate behavior, communicate ethical standards, and punish and reward employees based on ethical compliance. An ethical leader bears strong moral character, being concerned about everyone, and ought to pay attention to environmental compliance. Leaders are generally considered legitimate models for normative behavior [25]. Ethical leaders (as opposed to unethical) are more likely to earn "credibility" among their followers and are "attractive" role models to follow. In line with SLT, employees are more likely to "pay attention" to ethical leaders for learning desired behaviors [22]. Leaders are said to be essential drivers and motivators in organizational behavior [29]. The vision of leadership formulates strategies for an organization and the behavior of leaders sets examples for followers to behave in a specific direction [8]. Support and encouragement given by leaders helps employees in attaining their own, as well as the environmental goals, of an organization. Role modeling by ethical leaders influences the ethical climate by the development of trust and by their behaviors being displayed according to their words [30].

Along with direct observation, SLT also suggests that employees learn vicariously [22] when they observe the treatment of other employees by ethical leaders in terms of rewarding or punishing different conduct. Ethical leadership strongly impacts employees' ethical behaviors, as the moral actions of ethical leaders are visible at the workplace [31,32]. Employees need to perceive and interpret their work environment before acting upon policies [33]. An ethical leader puts some extra effort in to make their organizational climate green by encouraging as well as motivating employees through the performance of such behaviors being rewarded and appreciated. Precisely, leaders are said to be the interpretive filters of organizational policies and procedures for group members. Based on these policies, as well as on practices and how these policies are presented to employees, ultimately, leaders influence employees' perceptions of a climate [25].

Researchers noted that ethical leadership promotes ethical values in employees, promotes pro-organizational attitudes/behaviors, and curbs negative organizational attitudes/behaviors [34–39]. Fairness, honesty, selflessness, and ethical and social responsibility are the central features of ethical leaders [23,40]. Specifically, existing research lends support to this idea that ethical leadership

significantly impacts an ethical climate [24,41–44]. In a nutshell, ethical leaders can psychologically affect employees' perceptions regarding green policies and practices because they can develop and promote environmental standards to save the environment. Thus, we hypothesize that:

**Hypothesis 1:** *Ethical leadership is positively associated with green psychological climate.*

### 2.2. Green Psychological Climate and Employee Green Behavior

Employee green behavior (EGB) refers to the "scalable actions and behaviors that employees engage in that are linked with and contribute to or detract from environmental sustainability" [45]. It may fall under the heads of task performance, organizational citizenship behavior, or counterproductive work behavior. EGB encompasses saving energy (e.g., by turning off the lights when leaving offices), using resources efficiently (e.g., by using teleconferencing instead of traveling to meetings), avoiding waste (e.g., by editing documents electronically instead of printing them out), recycling (e.g., by printing drafts on scrap papers), or conserving water (e.g., by reporting leaks in the bathroom) [9,11,45].

The impact of contextual factors on general green behaviors have long been recognized [46]. Organizational climate is one of the critical contextual factors that influence employees' attitudes and behaviors [9,24,47]. Empirical research reports a positive impact of ethical climate on various employee attitudes/behaviors; for example, job satisfaction, job performance, OCB, affective commitment, effort, satisfaction with the supervisor, team identification [41,48–50]; and a negative impact on unethical behaviors [24].

Norton [11] argued that climate is a vital factor that helps in understanding and facilitating EGB. When employees get signals from the climate that the organization heartily welcomes EGB, they engage in displaying these behaviors because a deep sense of individual GPC emerges and becomes strengthened, which reflects in a continuous display of EGB. Employees' perceptions of an organization's environmental processes and strategies increase their green values and environmental suitability [51,52]. Employees' perceptions and discussions about their organization's social environment, policies, and practices develop the psychological climate [53]. In other words, the psychological climate is the result of employees' social interaction, and it is a process through which employees govern the organizational policies, procedures, and practices by having a sound observation of the workplace. Moreover, employees usually show and are motivated to perform behavior that is consistent with the perception of organizational policies. This motivation is because of their feelings that an organization rewards such behavior, and it becomes their belief that showing EGB is appropriate in their workplace.

GPC represents the shared interpretation of the objective work environment. Employees need to perceive and interpret a GPC before they act on it [33]. Employees observing high GPC internalize pro-environmental values and experience more organizational support to engage in EGB. In other words, under a GPC, employees are more willing to follow organizational rules and regulations about environmental sustainability and, therefore, demonstrate more EGB. GPC and EGB are both individual-level constructs; thus, GPC is arguably a proximal predictor of the later. The existing literature lends empirical support to this idea that GPC predicts EGB [9,24,54]. Hence, this study hypothesizes that:

**Hypothesis 2:** *There is a positive relationship between green psychological climate and employee green behavior.*

### 2.3. Mediation of Green Psychological Climate

Existing literature documents the significant role of various moral leadership styles in deriving EGB. For instance, spiritual leadership positively impacts EGB by inspiring moral values and by establishing a spiritual workplace atmosphere [19], and responsible leadership encourages employees' eco-friendly behaviors [55]. Further, environmental specific servant leadership positively influences EGB [56]. Leadership and workplace spirituality positively relate to employee pro-environmental behaviors [57]. Precisely, managerial support catalyzes EGB [58].

The literature empirically confirms the mediating role of climate between various organizational phenomena and employee behaviors. For example, an ethical climate mediates the relationship between ethical leadership and ethical behavior [43] and between ethical leadership and unethical behavior [25]. Similarly, Dumont [54] finds support for the mediation of GPC between green Human Resource Management-HRM and employee workplace green behaviors. However, the existing studies on ethical leadership and EGB relationships have ignored the mediating mechanism of GPC [53].

As discussed above, ethical leadership—as carried out by moral people and moral managers—is a powerful force for generating GPC. It contributes to the social learning of employees through role modeling and reinforcement. Ethical leaders not only formulate ethical standards but also inspire their followers to comply with these standards by explaining the significance of the devised ethical standards [40] and through two-way communication [59]. Therefore, ethical leaders shape the behavior of employees by putting themselves as role models. SLT posits that role modeling covers a series of psychological matching processes, including observation, imitation, and identification.

Ethical leaders are legitimate role models, and they can address the importance of sustainability issues very significantly. Employees are more likely to perform behaviors that are vital for organizations, important for leaders, and also of social concern. Employees are willing to pay more attention to ethical leadership. In the presence of ethical leaders, there are visible examples in the workplace to learn vicariously about behaviors that are being rewarded and pushed for compliance. Ethical leaders play an essential role in engaging employees in environmentally friendly behaviors, such as saving paper and energy, and supporting colleagues to engage in such behaviors [32,60]. Barnett [18] explained sustainability as an ethical issue, and ethical leaders tend to save the natural environment and display ethical responsibility [28]. Employees' perceptions of workplace green climate shape employees' environment-related behaviors [10].

Ethical leaders are the representatives and voices of organizational policies and practices, and they embrace such a climate in which employees perceive all the policies in the way desired by an organization. Employees' interpretations of these policies and procedures improves the GPC of an organization. Employees' perceptions of GPC at the workplace ultimately lead them to behave more environmentally responsible by devoting time and potency beyond a job's requirements. Moreover, employees in this situation tie themselves strongly to an organization. They demonstrate with their extra efforts how strongly they have accepted the goals and objectives of an organization and put extra effort into performing green behaviors at a workplace. All in all, we suggest that ethical leadership builds perceptions of a GPC, which in turn transforms into EGB. Therefore, we hypothesize that:

**Hypothesis 3:** *Green psychological climate mediates the relationship between ethical leadership and employee green behavior.*

### 2.4. Moderation of Environmental Awareness

Environmental awareness is the "degree of an employee's environmental knowledge, ability to bring about positive change in an environment by changing his/her pro-environmental behavior, and the recognition of environmental problems and their causes" [19,61]. It refers to knowledge and consciousness about environmental issues and their solutions as well. Environmental awareness leads individuals to engage in pro-environmental behaviors in the workplace. Studies have shown that when employees are well aware of ecological and environmental issues, they are more likely to perform green behaviors in the workplace. Awareness and knowledge of employees regarding the environment are positively associated with a GPC that ultimately derives EGB. Safari [15] documented that various environmental motivations, such as knowledge, awareness, and concern for others can influence an individual's green behavior. A numbers of factors induce individuals to perform EGB. For instance, a sense of responsibility and awareness regarding environmental issues, a sense of calling and membership, concern about the community, moral responsibility, and personal temperament. Employees with high environmental awareness can identify the costs and benefits linked with

environment-related issues and tend to become involved in eco-friendly behaviors in the workplace. Further, environmentally aware employees pay close attention to environmental challenges and tend to exhibit sustainability-oriented behaviors at the workplace [62]. Usually, individuals do not become involved in situations about which they have limited knowledge, and they tend to avoid these situations [17]. For instance, Chan [63] noted that consumers with an understanding of environmental issues are most likely to purchase green products such as recyclable products. An individual's awareness of environmental concerns enhances their participation in protecting the environment [64].

Afsar [19] noticed that employees' environmental awareness influences their intent to participate in pro-environmental behaviors. Thus, the relationship between ethical leadership and GPC becomes stronger when employees are more environmentally aware. This is because when employees experience ethical behavior by their immediate leader and they are more environmentally aware, their perceptions and interpretations of their organization's policies and practices regarding environmental sustainability further increase. Therefore, employees are more likely to engage in green behavior. Accordingly, this study hypothesizes that:

**Hypothesis 4:** *Environmental awareness moderates the indirect effect of ethical leadership on employee green behavior through the mediation of green psychological climate, and the effect is stronger when environmental awareness is high rather than when it is low.*

Figure 1 displays the study hypotheses with the mediation of GPC between ethical leadership and EGB and the cross-level moderation of environmental awareness. A vertical line in the hypothesized model separated the group level and individual level constructs. All the hypotheses were derived through the lens of SLT.
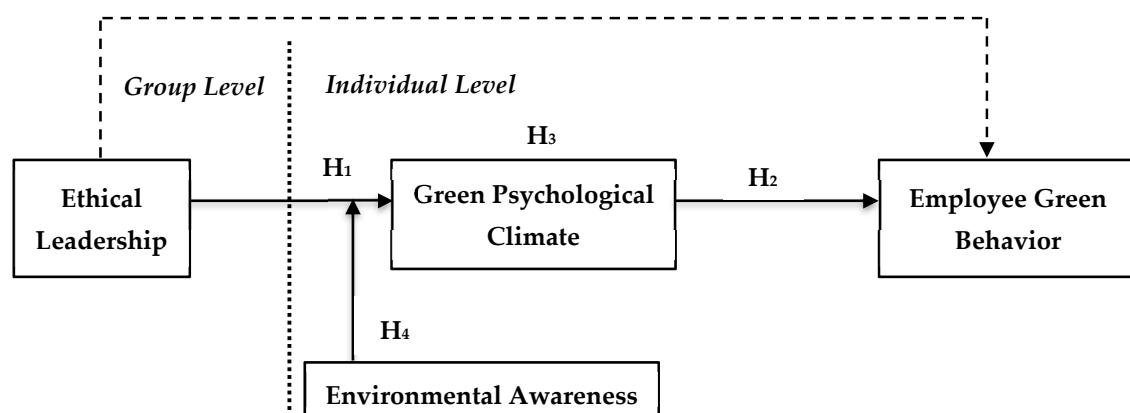


**Figure 1.** The hypothesized model.

## 3. Materials and Methods

This research employed a quantitative research design, utilized a deductive approach for theory development, and collected data through a survey strategy. We followed a two-stage sampling process. In Punjab, there are around 70 universities recognized by the Higher Education Commission of Pakistan and 22 hospitals recognized by the Pakistan Medical and Dental Council.

In the first stage, we randomly selected six universities (3 public and 3 private) and four hospitals (2 public and 2 private). We requested the top management for the two surveys by explicitly communicating our research objectives. Finally, we got approval from two universities (1 public and 1 private) and two hospitals (1 public and 1 private) located in the two large metropolitan cities. We signed ethics and confidentiality agreements with these organizations and also promised to keep anonymity. The top management of the organizations informed the human resource (HR) managers about the research.

In the second stage, we visited the HR department of each organization and requested that they provide us with the details of their permanent employees. With their assistance, we were able to identify 92 work units (groups/teams/departments with a mean size of 10.5) that had a unique leader/supervisor/manager. Data was collected through self-administered questionnaires by following the delivery and collection method. In 28 work units (with five followers), we targeted each of the followers, and for the remaining 64 work units, we randomly selected five followers for data collection.

The participants were already aware of the survey as we had requested the top management to direct an email to their employees, and this remained a very successful tool to increase our survey response rate. We then invited these participants to take part in our surveys by communicating our research objectives. We did not involve HR in the data collection to minimize biases, such as social desirability, as researched by Podsakoff [65]. We ensured the anonymity and confidentiality of the information associated with our survey to all the participants. Because the same time data collection for independent and dependent variables can cause method biases (Podsakoff [65]), we collected the data with temporal breaks by conducting two surveys in 3 weeks from December 2019 to January 2020.

In the first survey, we distributed 460 questionnaires to rate ethical leadership, GPC, and environmental awareness. In return, we received 425 completed questionnaires. In this survey, respondents provided a six-digit code about their name initials and date of birth that enabled us to match their data in the follow-up survey. In the second wave, we distributed 425 self-administered questionnaires among those employees who participated in the first survey to rate their EGB at the workplace, and we received 410 usable and complete questionnaires. The overall response rate was 89%, and this is similar to other management studies conducted in Pakistani universities and hospitals.

### 3.1. Measures

We made use of established instruments that have been extensively used and validated in the existing literature. *Ethical leadership* was measured by utilizing Brown's [23] 10-item scale (1 = never to 5 = every time). The sample items were "Listens to what employees have to say" and "Makes fair and balanced decisions." The Cronbach Alpha value was 0.96. We measured *green psychological climate* by making use of the 5-item scale ranging from 1 (strongly disagree) to 5 (strongly agree) developed by Norton [9]. The sample items included "My company is concerned with becoming more environmentally friendly" and "My company believes that it is important to protect the environment." The Cronbach Alpha value was 0.93. *Environmental awareness* was measured by making use of the 12-item scale ranging from 1 = low to 5 = high developed by Gatersleben [66]. The sample items included "A better environment starts with myself" and "People who do not take the environment into account try to escape their responsibility." The Cronbach Alpha was 0.72. *Employee green behavior* was captured by the 13-item scale developed by Graves [67]. Each item was assessed on the 5-point scale 0 = not at all and 4 = frequently if not always). The sample items included "I recycle and reuse materials" and "I try to reduce my energy use." The Cronbach Alpha was 0.86. Furthermore, *age, gender, education,* and *organizational tenure* were the control variables in this research.

### 3.2. Analytical Strategy

The difference between reflective and formative measures are central to a measurement model's appropriate specifications and are required to allocate meaningful associations in the structural model. Existing research has concentrated on both empirical and theoretical criteria to design and validate measurement models [68–70]. Finn [70] explained that empirical analyses give an essential basis for content validity, particularly to identify model misspecifications. Coltman [71] documented three theoretical (construct nature, the direction of causality between items and latent construct, and item characteristics) and three empirical (item intercorrelation, the relationships of items and constructs, and measurement error) considerations to distinguish between reflective and formative models. Based on these differences, we modeled all the constructs as reflective measures. For instance, all the latent constructs existed independently of the measures utilized, and all the items participated in a

common theme, and the changes in the constructs effected changes in the item measures. Empirical considerations also justified modeling all the constructs as reflective. The Cronbach Alpha, average variance extracted, maximum shared variance, factor loadings, and confirmatory factor analysis were used in this research to establish internal consistency, reliability, convergent validity, discriminant validity, and to identify measurement error (if any) for all the constructs.

Preliminary data analysis and descriptive and inferential statistics were calculated by using SPSS. We performed confirmatory factor analysis by utilizing Mplus [72] to examine the validity of individual-level constructs consisting of GPC, EGB and environmental awareness, and group-level variable ethical leadership. Mplus gives new insights to analyze data with several models and estimator choices, such as multilevel, cross-sectional, and longitudinal data that can be analyzed. The present study investigated multilevel data. Thus, Mplus was used for data analysis.

The model fitness was indicated through frequently reported indices, which included $X^2/df$, root mean square error approximation (RMSEA), the standardized root mean square residual (SRMR), the comparative fit index (CFI), and the Tucker-Lewis index (TLI). The adequate cut off values for these indices were less than 2.00 for the $X^2/df$, <0.08 for the RMSEA and SRMR, and > 0.90 for the CFI and TLI [73].

Group-level ethical leadership was the aggregation of the ratings from the group member following the typology of the direct consensus model [74]. Ethical leadership measured at the individual level was aggregated to group level because it was possible to explain the within-group mean score as group supervision. As satisfactory consensus within group at the individual level can validate the aggregation of individual-level scores at the group level [74,75], we calculated intraclass correlations (ICC1, ICC2) and RWG (j) to rationalize the above consensus for aggregating ethical leadership by following Muthén [76] and Preacher et al. [73]. We found ICC1 0.31, ICC2 0.46 and RWG (j) 0.69 which are within the acceptable range [77–79]. Thus, our group-level aggregation was supported, and this was also consistent with the existing multilevel literature [79,80].

## 4. Data Analysis and Results

### 4.1. Descriptive Analysis

Table 1 presents the reliability and validity estimates of the scales for all the constructs, and there were no issues in this regard.

**Table 1.** Scale reliability and validity.

|  | Items | Cronbach Alpha | AVE | MSV | CR |
|---|---|---|---|---|---|
| *Level 1 (Individual)* |  |  |  |  |  |
| Green Psychological Climate | 5 | 0.93 | 0.50 | 0.29 | 0.91 |
| Employee Green Behavior | 12 | 0.86 | 0.59 | 0.43 | 0.72 |
| Environmental Awareness | 12 | 0.72 | 0.62 | 0.10 | 0.69 |
| *Level 2 (Group)* |  |  |  |  |  |
| Ethical Leadership | 10 | 0.96 | 0.57 | 0.32 | 0.81 |

Notes: AVE = average variance extracted, MSV = maximum shared variance, CR = composite reliability.

The values of average variance extracted were more than 0.50, thereby verifying convergent validity. The maximum shared variance was less than the average variance extracted, thus establishing discriminant validity. Further composite reliability was confirmed for all the constructs as the value was more than 0.70. The same was the case with the Cronbach Alpha.

Table 2 shows the descriptive and inferential statistics. The mean, standard deviation, kurtosis, and skewness values were within the acceptable range for all the variables. For instance, the GPC had high mean values that were 4.52 as the sample respondents were well aware of environmental concerns. Furthermore, all the variables established normality as the kurtosis and skewness values

were within the acceptable range. Our data was free of multicollinearity issues, as specified in our bivariate correlation results.

**Table 2.** Descriptive and inferential statistics.

|  | Mean | SD | Skewness | Kurtosis | 1 | 2 | 3 |
|---|---|---|---|---|---|---|---|
| *Level 1 (Individual)* | | | | | | | |
| 1. Green Psychological Climate | 4.22 | 0.76 | −1.55 | 2.4 | 1 | | |
| 2. Employee Green Behavior | 4.09 | 0.52 | 1.32 | 1.35 | 0.64 * | 1 | |
| 3. Environmental Awareness | 4.52 | 0.39 | −0.86 | 0.74 | 0.34 ** | 0.35 * | 1 |
| *Level 2 (Group)* | | | | | | | |
| 4. Ethical Leadership | 4.21 | 0.43 | −1.75 | 1.59 | 0.18 ** | 0.36 * | 0.28 * |

Notes: Correlation is significant at * $p < 0.01$, ** $p < 0.05$, SD = standard deviation.

We found a modest correlation, and the correlation coefficients were also in the suggested directions. As such, ethical leadership significantly and positively (0.18, $p < 0.01$) related to GPC. GPC and EGB were significantly and positively related (0.64, $p < 0.01$) with each other. Further, there was a statistically significant positive correlation (0.36, $p < 0.01$) between ethical leadership and EGB. Environmental awareness also significantly and positively related to ethical leadership (0.28, $p < 0.01$) and GPC (0.34, $p < 0.05$), respectively.

## 4.2. Hypotheses Testing

This research used structural equation modeling to conduct path analysis, and the results are presented in Table 3 and Figure 2. The model fit indices were CMIN/DF = 2.94, RMSEA = 0.04, SRMR = 0.003, CFI = 0.78, and TLI = 0.67. The regression coefficient for ethical leadership and GPC was (0.25, $p < 0.01$), and this showed that ethical leadership had a statistically significant positive effect on the GPC. With a 1-unit increase in ethical leadership, GPC increased by 0.25 units. We hypothesized that group-level ethical leadership positively related to GPC, and thus Hypothesis 1 was supported.

**Table 3.** Summary of direct and indirect effects.

|  | Estimates | 95% CI | Remarks |
|---|---|---|---|
| Ethical Leadership ⟶ GPC | 0.25 * | (0.007, 0.484) | Supported (H₁) |
| GPC ⟶ EGB | 0.56 * | (0.289, 0.837) | Supported (H₂) |
| Ethical Leadership*EA ⟶ GPC | 0.28 * | (0.072, 0.301) | |
| Ethical Leadership ⟶ EGB | 0.29 * | (0.221, 0.400) | |
| Ethical Leadership ⟶ GPC ⟶ EGB | 0.14 ** | (0.030, 0.146) | Supported (H₃) |
| Ethical Leadership*EA ⟶ GPC ⟶ EGB | 0.16 ** | (0.081, 0.172) | Supported (H₄) |

* $p < 0.01$, ** $p < 0.05$, GPC = Green Psychological Climate, EGB = Employee Green Behavior, EA = Environmental Awareness.

Similarly, we also found a statistically significant positive impact of GPC on EGB (0.56, $p < 0.01$), and this supported our Hypothesis 2. Ethical leadership was also positively and significantly (0.21, $p < 0.01$) related to EGB. Furthermore, Table 3 showed the indirect effect of ethical leadership on EGB through the mediation of GPC. Our results presented that the GPC significantly mediated this relationship by 0.14 (95% CI (0.030, 0.146)). The total effect of ethical leadership on EGB was 0.35, and the portion of GPC represented partial mediation. Thus, Hypothesis 3 was supported.

In the final hypothesis, this research proposed that environmental awareness moderate the indirect effect of ethical leadership on EGB through the mediation of GPC. To examine this relationship, firstly, we tested the interaction of ethical leadership and environmental awareness and found this interaction term was positively and significantly (0.28, $p < 0.01$) related to GPC. We found that the indirect effect of ethical leadership on EGB through the mediation of GPC strengthened at the high level of

environmental awareness of 0.16 (95% CI (0.081, 0.172)). For instance, we found that with a 1-unit increase in ethical leadership, EGB increased by 0.14 units with the mediation mechanism of GPC.
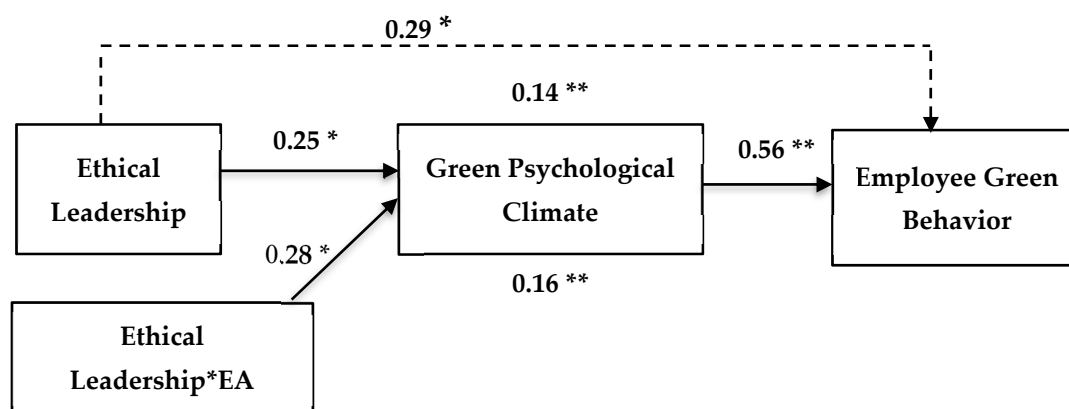


**Figure 2.** Results. * $p < 0.01$, ** $p < 0.05$, EA = Environmental Awareness. CMIN/DF = 2.94, root mean square error approximation (RMSEA) = 0.04, standardized root mean square residual (SRMR) = 0.003, comparative fit index (CFI) = 0.78, comparative fit index (TLI) = 0.67)

This indirect effect strengthened with the boundary condition of environmental awareness as with a 1-unit increase in ethical leadership. EGB increased by 0.16 units through the moderated mediation of GPC and environmental awareness. In other words, when employees' environmental awareness was high, the effect of ethical leadership on employees' perceptions of GPC was stronger, which ultimately translated into more EGB. Furthermore, to better comprehend the moderation of environmental awareness, we plotted the effect in Figure 3. It shows that the relationship of ethical leadership with GPC strengthened more when environmental awareness was high than when it was low. Thus, Hypothesis 4 was also supported.
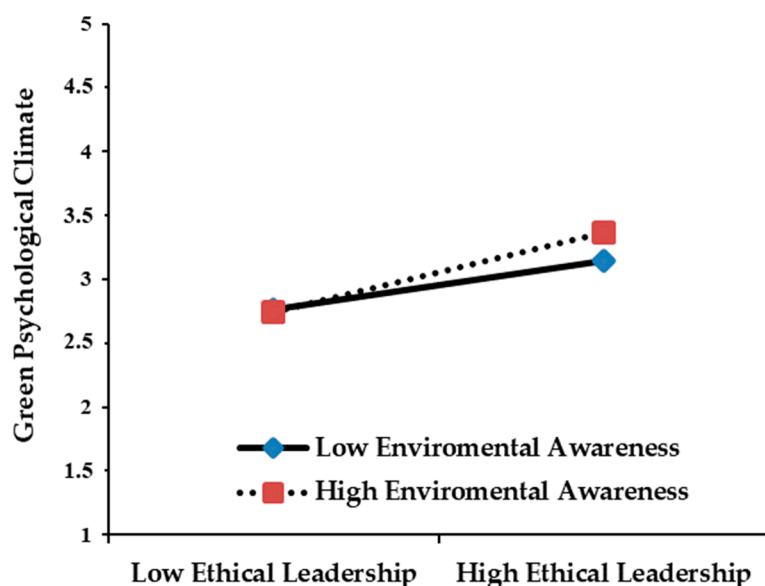


**Figure 3.** Moderation of environmental awareness.

## 5. Discussions and Conclusions

This research aimed to investigate a mechanism that links group-level ethical leadership to individual-level employee green behavior (EGB) through green psychological climate (GPC). It also

examined the boundary condition of individual-level employees' environmental awareness on the mediation of GPC between ethical leadership and EGB.

Leadership was found to be an important determinant of organizational climate [24], and leaders play a significant role in shaping organizational climate [31]. In line with this notion, the existing studies have noted the positive effect of ethical leadership on employees' ethical and pro-social behaviors. Ethical leadership minimizes employees' unethical behaviors [34,53–55] and significantly relates to various employee work outcomes [58]. Ethical leadership can influence employees' workplace attitudes and behaviors [36]. Ethical leaders set the ethical tone of organizations [25]. The research in OB confirmed the positive outcomes of ethical leadership; however, the research on the effect of ethical leadership on green psychological climate is scarce as only a few studies have attempted to test this relationship, such as Khan [53], who found a positive effect of ethical leadership on GPC. We also found a positive impact of ethical leadership on GPC. Thus, our results are not only as per the existing literature, illuminating the positive relationship between ethical leadership and GPC, but also advance the debate on the ethical leadership and GPC relationship at multilevel. According to the SLT of Bandura [22], we specified that ethical role modeling by leaders influences the climate by developing trust and by displaying behaviors according to their words. Furthermore, it also suggested that ethical leaders play a significant role in modifying and shaping an organizational climate.

Secondly, the present research confirmed the results of the existing research on the association of an organization's work climate with employees' workplace behavior [40,41]. This study advanced the research on the relationship of GPC with EGB [40,52]. Our findings indicated that GPC is an essential contextual factor that positively affects EGB. This research also validated that employees usually tend to engage in those behaviors that are consistent with the perception of organizational policies [42] and their feelings about what type of behaviors are rewarded by an organization [40]. Thus, employees' perceptions of their organization's GPC motivate them to engage in green behavior at the workplace.

Thirdly, this research expanded and validated the current literature on the relationship of ethical leadership with EGB through the mediation mechanism of GPC. Our results suggested that ethical leaders contemplate the protection of the environment as their moral responsibility [38]. Moreover, they set such ethical standards in an organization that portray the importance of ethical standards to employees to shape employees' perceptions regarding environmental policies, procedures, and practices. These shared perceptions, in turn, stimulate employees to exhibit EGB. Barnett [18] explained that issues regarding the environment are unethical; there is a need for leaders to help and motivate employees in resolving such types of issues. Leaders and employees can both play a significant role in displaying pro-environmental behaviors in the workplace as leaders are role models for employees [8,19,52]. Ethical leaders pay much attention to the ethical responsibilities of employees, and this sort of responsibility, in return, can reduce the business organizations' damaging effects on the environment. The concern of others is an essential feature of ethical leadership. Thus, ethical leaders' concern for employees, organizations, and society can create moral commitment in employees to strive for ethical values [24], for instance, peace, ecology, and social justice as well as for them to display environmental behaviors, such as recycling, the conservation of resources, and the saving of energy.

Finally, the significance of this research is further enhanced due to our findings about the boundary condition of environmental awareness on the relationship between ethical leadership and GPC. We found that environmental awareness fortifies the effect of ethical leadership on GPC, which further translates into EGB. Thus, we empirically confirmed the existing research explaining the effect of environmental awareness on employees' eco-friendly intentions and behaviors [15,17]. Further, this research extended existing knowledge by confirming environmental awareness in a developing country as a boundary condition on the indirect effect of ethical leadership on EGB through the mediation of GPC. Precisely, our research combined five knowledge domains: ethical leadership [23–25,28,32,40,53,59], GPC [81,82], EGB [8,9,17,29,53], SLT [22,53], and environmental awareness [15,65,83] and also advanced the literature on the outcomes of ethical leadership and antecedents of EGB at multilevel.

### 5.1. Practical Implications

This research provides several practical insights for managers. Organizations can improve EGB by keeping ethical leadership and employees' environmental awareness in check. Top management and leaders should nurture a green climate if they want their employees to perform green behaviors because employees mostly follow directions given by management and go in the same direction as their management. Clear signals should be given to employees, and such a vision should be voiced by leaders and organizations that articulates the importance of environmental sustainability goals at the workplace. More specifically, organizations must concentrate on their managers' ethical behaviors to accomplish their sustainable development goals. Secondly, managers can inculcate EGB by setting a GPC through role modeling. Thirdly, managers should consider the employees' environmental awareness as a critical factor in fostering EGB. In this regard, organizations should arrange training sessions [83–85] for their employees to enhance their eco-friendly knowledge. Fourthly, human resource management must integrate recruitment processes with organizations' sustainability strategies. For instance, at the time of interview, ethics and environment-related questions can be observed, and applicants can be asked to evaluate their ethical values and environmental awareness. Last but not least, organizations can promote EGB by providing employees with opportunities to participate in the organization's sustainability policy.

### 5.2. Limitations and Future Research

Despite several contributions of our research, a few limitations must also be noticed, which offer rich insights for further research. Our first limitation is that we considered only one boundary condition—that of environmental awareness strengthening the effect of ethical leadership on GPC. It would be interesting to uncover other individual differences or contextual variables that may affect this relationship, such as individual green values [54], moral identity [24], the age of employees, the desire to have a significant impact through work [86,87], and perceived organizational support. Our research established a mechanism to derive EGB. It would be interesting to examine the effect of EGB on organizations' environmental and financial performance. It would also be remarkable to explore other factors that can mediate the relationship between ethical leadership and EGB, for instance, employees' environmental harmonious passion. Our research contributed to SLT, and it would be feasible to consider other theoretical frameworks to understand the inculcation of EGB. For example, social information processing theory [88], supervisors' organizational "embodiment" [89], and "looking outward" at the informational cues [42] maybe most relevant in this regard. Mahmood et al. [80] used Ashforth's [90] social identity theory to establish that the context-specific actions and policies of organizations that consider stakeholders' expectations and economic, social, and environmental performance enhance organizational identification and minimize employees' negative workplace behavior. Moreover, for a better understanding of antecedents and outcomes of EGB, future research should consider multilevel mechanisms and boundary conditions.

### References

1. Aguinis, H.; Glavas, A. What we know and don't know about corporate social responsibility a review and research agenda. *J. Manag.* **2012**, *38*, 932–968.
2. Peng, X.; Lee, S. Self-discipline or self-interest? The antecedents of hotel employees' pro-environmental behaviours. *J. Sustain. Tour.* **2019**, *27*, 1457–1476. [CrossRef]

3. Swim, J.K.; Clayton, S.; Howard, G.S. Human behavioral contributions to climate change: Psychological and contextual drivers. *Am. Psychol.* **2011**, *66*, 251. [CrossRef] [PubMed]

4. Testa, F.; Corsini, F.; Gusmerotti, N.M.; Iraldo, F. Predictors of organizational citizenship behavior in relation to environmental and health & safety issues. *Int. J. Hum. Resour. Manag.* **2018**, 1–34. [CrossRef]

5. Bansal, P.; Hoffman, A.J. *The Oxford Handbook of Business and the Natural Environment*; Oxford University Press: New York, NY, USA, 2012.

6. Robertson, J.L.; Barling, J. "Introduction". In *The Psychology of Green Organizations*; Robertson, J.L., Barling, J., Eds.; Oxford University Press: New York, NY, USA, 2015; pp. 3–11.

7. Tian, Q.; Robertson, J.L. How and when does perceived CSR affect employees' engagement in voluntary pro-environmental behavior? *J. Bus. Ethics* **2019**, *155*, 399–412. [CrossRef]

8. Ones, D.S.; Dilchert, S. Environmental sustainability at work: A call to action. *Ind. Organ. Psychol.* **2012**, *5*, 444–466. [CrossRef]

9. Norton, T.A.; Zacher, H.; Parker, S.L.; Ashkanasy, N.M. Bridging the gap between green behavioral intentions and employee green behavior: The role of green psychological climate. *J. Organ. Behav.* **2017**, *38*, 996–1015. [CrossRef]

10. Tian, H.; Zhang, J.; Li, J. The relationship between pro-environmental attitude and employee green behavior: The role of motivational states and green work climate perceptions. *Environ. Sci. Pollut. Res.* **2020**, *27*, 7341–7352. [CrossRef]

11. Norton, T.A.; Zacher, H.; Ashkanasy, N.M. Pro-environmental organizational culture and climate. In *The Psychology of Green Organizations*; Oxford University Press: New York, NY, USA, 2015; pp. 322–348.

12. Lamm, E.; Tosti-Kharas, J.; King, C.E. Empowering employee sustainability: Perceived organizational support toward the environment. *J. Bus. Ethics* **2015**, *128*, 207–220. [CrossRef]

13. Ramus, C.A.; Steger, U. The roles of supervisory support behaviors and environmental policy in employee "ecoinitiatives" at leading-edge European companies. *Acad. Manag. J.* **2000**, *43*, 605–626.

14. Bissing-Olson, M.J.; Iyer, A.; Fielding, K.S.; Zacher, H. Relationships between daily affect and pro-environmental behavior at work: The moderating role of pro-environmental attitude. *J. Organ. Behav.* **2013**, *34*, 156–175. [CrossRef]

15. Safari, A.; Salehzadeh, R.; Panahi, R.; Abolghasemian, S. Multiple pathways linking environmental knowledge and awareness to employees' green behavior. *Corp. Gov. Int. J. Bus. Soc.* **2018**, *18*, 81–103. [CrossRef]

16. Afsar, B.; Badir, Y. Workplace spirituality, perceived organizational support and innovative work behavior. *J. Workplace Learn.* **2017**. [CrossRef]

17. Saeed, B.B.; Afsar, B.; Hafeez, S.; Khan, I.; Tahir, M.; Afridi, M.A. Promoting employee's proenvironmental behavior through green human resource management practices. *Corp. Soc. Responsib. Environ. Manag.* **2019**, *26*, 424–438. [CrossRef]

18. Barnett, C.; Clarke, N.; Cloke, P.; Malpass, A. The political ethics of consumerism. *Consum. Policy Rev.* **2005**, *15*, 45–51.

19. Afsar, B.; Badir, Y.; Kiani, U.S. Linking spiritual leadership and employee pro-environmental behavior: The influence of workplace spirituality, intrinsic motivation, and environmental passion. *J. Environ. Psychol.* **2016**, *45*, 79–88. [CrossRef]

20. Robertson, J.L.; Barling, J. Greening organizations through leaders' influence on employees' pro-environmental behaviors. *J. Organ. Behav.* **2013**, *34*, 176–194. [CrossRef]

21. Ko, C.; Ma, J.; Bartnik, R.; Haney, M.H.; Kang, M. Ethical leadership: An integrative review and future research agenda. *Ethics Behav.* **2018**, *28*, 104–132. [CrossRef]

22. Bandura, A.; Walters, R.H. *Social Learning Theory*; Prentice-Hall: Englewood Cliffs, NJ, USA, 1977.

23. Brown, M.E.; Treviño, L.K. Ethical leadership: A review and future directions. *Leadersh. Q.* **2006**, *17*, 595–616. [CrossRef]

24. Kuenzi, M.; Mayer, D.M.; Greenbaum, R.L. Creating an ethical organizational environment: The relationship between ethical leadership, ethical organizational climate, and unethical behavior. *Pers. Psychol.* **2019**, *73*, 43–71. [CrossRef]

25. Mayer, D.M.; Kuenzi, M.; Greenbaum, R.L. Examining the link between ethical leadership and employee misconduct: The mediating role of ethical climate. *J. Bus. Ethics* **2010**, *95*, 7–16. [CrossRef]

26. Kuenzi, M.; Schminke, M. Assembling fragments into a lens: A review, critique, and proposed research agenda for the organizational work climate literature. *J. Manag.* **2009**, *35*, 634–717. [CrossRef]

27. Norton, T.A.; Zacher, H.; Ashkanasy, N.M. On the Importance of Pro-Environmental Organizational Climate for Employee Green Behavior. *Ind. Organ. Psychol.* **2012**, *5*, 497. [CrossRef]

28. Wu, L.-Z.; Kwan, H.K.; Yim, F.H.-K.; Chiu, R.K.; He, X. CEO ethical leadership and corporate social responsibility: A moderated mediation model. *J. Bus. Ethics* **2015**, *130*, 819–831. [CrossRef]

29. Bass, B.M. *Leadership, Psychology, and Organizational Behavior*; Harper & Row: New York, NY, USA, 1960.

30. Grojean, M.W.; Resick, C.J.; Dickson, M.W.; Smith, D.B. Leaders, values, and organizational climate: Examining leadership strategies for establishing an organizational climate regarding ethics. *J. Bus. Ethics* **2004**, *55*, 223–241. [CrossRef]

31. Walumbwa, F.O.; Lawler, J.J. Building effective organizations: Transformational leadership, collectivist orientation, work-related attitudes and withdrawal behaviours in three emerging economies. *Int. J. Hum. Resour. Manag.* **2003**, *14*, 1083–1101. [CrossRef]

32. Kalshoven, K.; Den Hartog, D.N.; De Hoogh, A.H. Ethical leadership at work questionnaire (ELW): Development and validation of a multidimensional measure. *Leadersh. Q.* **2011**, *22*, 51–69. [CrossRef]

33. James, L.R.; Choi, C.C.; Ko, C.-H.E.; McNeil, P.K.; Minton, M.K.; Wright, M.A.; Kim, K.-I. Organizational and psychological climate: A review of theory and research. *Eur. J. Work Organ. Psychol.* **2008**, *17*, 5–32. [CrossRef]

34. Eva, N.; Newman, A.; Miao, Q.; Wang, D.; Cooper, B. Antecedents of duty orientation and follower work behavior: The interactive effects of perceived organizational support and ethical leadership. *J. Bus. Ethics* **2020**, *161*, 627–639. [CrossRef]

35. Bedi, A.; Alpaslan, C.M.; Green, S. A meta-analytic review of ethical leadership outcomes and moderators. *J. Bus. Ethics* **2016**, *139*, 517–536. [CrossRef]

36. Bavik, Y.L.; Tang, P.M.; Shao, R.; Lam, L.W. Ethical leadership and employee knowledge sharing: Exploring dual-mediation paths. *Leadersh. Q.* **2018**, *29*, 322–332. [CrossRef]

37. Naeem, R.M.; Weng, Q.; Hameed, Z.; Rasheed, M.I. Ethical leadership and work engagement: A moderated mediation model. *Ethics Behav.* **2020**, *30*, 63–82. [CrossRef]

38. Suifan, T.S.; Diab, H.; Alhyari, S.; Sweis, R.J. Does ethical leadership reduce turnover intention? The mediating effects of psychological empowerment and organizational identification. *J. Hum. Behav. Soc. Environ.* **2020**, 1–19. [CrossRef]

39. Qing, M.; Asif, M.; Hussain, A.; Jameel, A. Exploring the impact of ethical leadership on job satisfaction and organizational commitment in public sector organizations: The mediating role of psychological empowerment. *Rev. Manag. Sci.* **2019**, 1–28. [CrossRef]

40. Moore, C.; Mayer, D.M.; Chiang, F.F.; Crossley, C.; Karlesky, M.J.; Birtch, T.A. Leaders matter morally: The role of ethical leadership in shaping employee moral cognition and misconduct. *J. Appl. Psychol.* **2019**, *104*, 123. [CrossRef] [PubMed]

41. Cheng, M.-Y.; Wang, L. The mediating effect of ethical climate on the relationship between paternalistic leadership and team identification: A team-level analysis in the Chinese context. *J. Bus. Ethics* **2015**, *129*, 639–654. [CrossRef]

42. Hansen, S.D.; Dunford, B.B.; Alge, B.J.; Jackson, C.L. Corporate social responsibility, ethical leadership, and trust propensity: A multi-experience model of perceived ethical climate. *J. Bus. Ethics* **2016**, *137*, 649–662. [CrossRef]

43. Lu, C.-S.; Lin, C.-C. The effects of ethical leadership and ethical climate on employee ethical behavior in the international port context. *J. Bus. Ethics* **2014**, *124*, 209–223. [CrossRef]

44. Shin, Y.; Sung, S.Y.; Choi, J.N.; Kim, M.S. Top management ethical leadership and firm performance: Mediating role of ethical and procedural justice climate. *J. Bus. Ethics* **2015**, *129*, 43–57. [CrossRef]

45. Ones, D.S.; Dilchert, S. Environmental sustainability at work—A call to action. Industrial and Organizational Psychology. *Perspect. Sci. Pract.* **2012**, *5*, 444–466.

46. Littleford, C.; Ryley, T.J.; Firth, S.K. Context, control and the spillover of energy use behaviours between office and home settings. *J. Environ. Psychol.* **2014**, *40*, 157–166. [CrossRef]

47. Schneider, B.; Ehrhart, M.G.; Macey, W.H. Organizational climate and culture. *Annu. Rev. Psychol.* **2013**, *64*, 361–388. [CrossRef] [PubMed]

48. Mulki, J.P.; Jaramillo, J.F.; Locander, W.B. Critical role of leadership on ethical climate and salesperson behaviors. *J. Bus. Ethics* **2009**, *86*, 125–141. [CrossRef]

49. Neubert, M.J.; Carlson, D.S.; Kacmar, K.M.; Roberts, J.A.; Chonko, L.B. The virtuous influence of ethical leadership behavior: Evidence from the field. *J. Bus. Ethics* **2009**, *90*, 157–170. [CrossRef]

50. Parker, C.P.; Baltes, B.B.; Young, S.A.; Huff, J.W.; Altmann, R.A.; Lacost, H.A.; Roberts, J.E. Relationships between psychological climate perceptions and work outcomes: A meta-analytic review. *J. Organ. Behav.* **2003**, *24*, 389–416. [CrossRef]

51. Norton, T.A.; Zacher, H.; Ashkanasy, N.M. Organisational sustainability policies and employee green behaviour: The mediating role of work climate perceptions. *J. Environ. Psychol.* **2014**, *38*, 49–54. [CrossRef]

52. Zhou, S.; Zhang, D.; Lyu, C.; Zhang, H. Does Seeing "Mind Acts Upon Mind" Affect Green Psychological Climate and Green Product Development Performance? The Role of Matching Between Green Transformational Leadership and Individual Green Values. *Sustainability* **2018**, *10*, 3206. [CrossRef]

53. Khan, M.A.S.; Ali, M.; Usman, M.; Saleem, S.; Jianguo, D. Interrelationships between ethical leadership, green psychological climate, and organizational environmental citizenship behavior: The moderating role of gender. *Front. Psychol.* **2019**, *10*, 1977. [CrossRef]

54. Dumont, J.; Shen, J.; Deng, X. Effects of green HRM practices on employee workplace green behavior: The role of psychological green climate and employee green values. *Hum. Resour. Manag. J.* **2017**, *56*, 613–627. [CrossRef]

55. Zhao, H.; Zhou, Q. Exploring the impact of responsible leadership on organizational citizenship behavior for the environment: A leadership identity perspective. *Sustainability* **2019**, *11*, 944. [CrossRef]

56. Luu, T.T. CSR and customer value co-creation behavior: The moderation mechanisms of servant leadership and relationship marketing orientation. *J. Bus. Ethics* **2019**, *155*, 379–398. [CrossRef]

57. Fatoki, O.J.S. Hotel Employees' Pro-Environmental Behaviour: Effect of Leadership Behaviour, Institutional Support and Workplace Spirituality. *Sustainability* **2019**, *11*, 4135. [CrossRef]

58. Junsheng, H.; Masud, M.M.; Akhtar, R.; Rana, M.J.S. The Mediating Role of Employees' Green Motivation between Exploratory Factors and Green Behaviour in the Malaysian Food Industry. *Sustainability* **2020**, *12*, 509. [CrossRef]

59. Han, Z.; Wang, Q.; Yan, X.J.S. How Responsible Leadership Motivates Employees to Engage in Organizational Citizenship Behavior for the Environment: A Double-Mediation Model. *Sustainability* **2019**, *11*, 605. [CrossRef]

60. Kalshoven, K.; Den Hartog, D.N. Ethical leader behavior and leader effectiveness: The role of prototypicality and trust. *Int. J. Leadersh. Stud.* **2009**, *5*, 102–120.

61. Madsen, H.; Ulhøi, J.P. Greening of human resources: Environmental awareness and training interests within the workforce. *Ind. Manag. Data. Syst.* **2001**. [CrossRef]

62. Afshar Jahanshahi, A.; Brem, A.; Gholami, H.J.S. Working in a Physically Dangerous Work Environment: Employee Vitality and Sustainable Behavior. *Sustainability* **2019**, *11*, 5170. [CrossRef]

63. Chan, E.S.; Hon, A.H.; Chan, W.; Okumus, F. What drives employees' intentions to implement green practices in hotels? The role of knowledge, awareness, concern and ecological behaviour. *Int. J. Hosp. Manag.* **2014**, *40*, 20–28. [CrossRef]

64. Zsóka, Á.; Szerényi, Z.M.; Széchy, A.; Kocsis, T. Greening due to environmental education? Environmental knowledge, attitudes, consumer behavior and everyday pro-environmental activities of Hungarian high school and university students? *J. Clean. Prod.* **2013**, *48*, 126–138. [CrossRef]

65. Podsakoff, P.M.; MacKenzie, S.B.; Lee, J.-Y.; Podsakoff, N.P. Common method biases in behavioral research: A critical review of the literature and recommended remedies. *J. Appl. Psychol.* **2003**, *88*, 879. [CrossRef]

66. Gatersleben, B.; Murtagh, N.; Abrahamse, W. Values, identity and pro-environmental behaviour. *Contemp. Soc. Sci.* **2014**, *9*, 374–392. [CrossRef]

67. Graves, L.M.; Sarkis, J.; Zhu, Q. How transformational leadership and employee motivation combine to predict employee proenvironmental behaviors in China. *J. Environ. Psychol.* **2013**, *35*, 81–91. [CrossRef]

68. Borsboom, D.; Mellenbergh, G.J.; Van Heerden, J. The concept of validity. *Psychol. Rev.* **2004**, *111*, 1061. [CrossRef] [PubMed]

69. Diamantopoulos, A. The C-OAR-SE procedure for scale development in marketing: A comment. *Int. J. Mark. Res.* **2005**, *22*, 1–9. [CrossRef]

70. Finn, A.; Kayande, U. How fine is C-OAR-SE? A generalizability theory perspective on Rossiter's procedure. *Int. J. Mark. Res.* **2005**, *22*, 11–21. [CrossRef]

71. Coltman, T.; Devinney, T.M.; Midgley, D.F.; Venaik, S. Formative versus reflective measurement models: Two applications of formative measurement. *J. Bus. Res.* **2008**, *61*, 1250–1262. [CrossRef]

72. Muthén, L.; Muthén, B. *The Comprehensive Modelling Program for Applied Researchers: User's Guide*; Muthén & Muthén: Los Angeles, CA, USA, 2016; Volume 5.

73. Preacher, K.J.; Zhang, Z.; Zyphur, M.J. Alternative methods for assessing mediation in multilevel data: The advantages of multilevel SEM. *Struct. Equ. Model.* **2011**, *18*, 161–182. [CrossRef]

74. Chan, D. Functional relations among constructs in the same content domain at different levels of analysis: A typology of composition models. *J. Appl. Psychol.* **1998**, *83*, 234. [CrossRef]

75. Farh, C.I.; Chen, Z. Beyond the individual victim: Multilevel consequences of abusive supervision in teams. *J. Appl. Psychol.* **2014**, *9*, 1074. [CrossRef]

76. Muthén, B.O. Multilevel covariance structure analysis. *Sociol. Methods Res.* **1994**, *22*, 376–398. [CrossRef]

77. James, L.R. Aggregation bias in estimates of perceptual agreement. *J. Appl. Psychol.* **1982**, *67*, 219. [CrossRef]

78. James, L.R.; Demaree, R.G.; Wolf, G. Rwg: An assessment of within-group interrater agreement. *J. Appl. Psychol.* **1993**, *78*, 306. [CrossRef]

79. Kim, A.; Kim, Y.; Han, K.; Jackson, S.E.; Ployhart, R.E. Multilevel influences on voluntary workplace green behavior: Individual differences, leader behavior, and coworker advocacy. *J. Manag.* **2017**, *43*, 1335–1358. [CrossRef]

80. Mahmood, F.; Qadeer, F.; Abbas, Z.; Hussain, I.; Saleem, M.; Hussain, A.; Aman, J.J.S. Corporate Social Responsibility and Employees' Negative Behaviors under Abusive Supervision: A Multilevel Insight. *Sustainability* **2020**, *12*, 2647. [CrossRef]

81. Das, A.K.; Biswas, S.R.; Jilani, A.K.; Muhammad, M.; Uddin, M.J.S. Corporate environmental strategy and voluntary environmental behavior—Mediating effect of psychological green climate. *Sustainability* **2019**, *11*, 3123. [CrossRef]

82. Demirtas, O.; Akdogan, A.A. The effect of ethical leadership behavior on ethical climate, turnover intention, and affective commitment. *J. Bus. Ethics* **2015**, *130*, 59–67. [CrossRef]

83. Law, M.M.S.; Hills, P.; Hau, B.C.H. Engaging employees in sustainable development–a case study of environmental education and awareness training in Hong Kong. *Bus. Strategy Environ.* **2017**, *26*, 84–97. [CrossRef]

84. Govindarajulu, N.; Daily, B.F. Motivating employees for environmental improvement. *Ind. Manag. Data Syst.* **2004**. [CrossRef]

85. Perron, G.M.; Côté, R.P.; Duffy, J.F. Improving environmental awareness training in business. *J. Clean. Prod.* **2006**, *14*, 551–562. [CrossRef]

86. Shahzadi, G.; Qadeer, F.; John, A.; Jia, J.F. CSR and identification: The contingencies of employees' personal traits and desire. *Soc. Responsib. J.* **2019**. [CrossRef]

87. John, A.; Qadeer, F.; Shahzadi, G.; Jia, F. Getting paid to be good: How and when employees respond to corporate social responsibility? *J. Clean. Prod.* **2019**, *215*, 784–795. [CrossRef]

88. Salancik, G.R.; Pfeffer, J. A social information processing approach to job attitudes and task design. *Adm. Sci. Q.* **1978**, *23*, 224–253. [CrossRef] [PubMed]

89. Eisenberger, R.; Karagonlar, G.; Stinglhamber, F.; Neves, P.; Becker, T.E.; Gonzalez-Morales, M.G.; Steiger-Mueller, M.J. Leader–member exchange and affective organizational commitment: The contribution of supervisor's organizational embodiment. *J. Appl. Psychol.* **2010**, *95*, 1085. [CrossRef] [PubMed]

90. Ashforth, B.E.; Mael, F.J. Social identity theory and the organization. *Acad. Manag.* **1989**, *14*, 20–39.