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Do Environmental Transformational Leadership Predicts Organizational Citizenship Behavior towards Environment in Hospitality Industry: Using Structural Equation Modelling Approach

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Abstract: Voluntary pro-environmental behaviors in the workplace such as organizational citizenship behavior towards environment (OCBE) are pertinent for the organizations striving to become environmentally responsible entities. The significance of OCBE for green organizational initiatives has led scholars to strive for expanding its nomological network. Approaching from the theoretical angle of the social information processing approach, this quantitative, survey-based study theoretically links and empirically tests the impact of environmental transformational leadership on organizational citizenship behavior towards environment (OCBE) via mediating mechanism of perceived meaningful work. Data from a sample of 311 employees working in Pakistan's hospitality sector were collected and analyzed to test the hypothesized relationships using structural equation modelling. Results indicated the indirect effect of perceived meaningful work on the relationship between environmental transformational leadership and organizational citizenship behavior towards environment. Implications of both theoretical and practical nature are laid out in the relevant sections of the paper.

Keywords: environmental transformational leadership (ETL); organizational citizenship behavior for the environment (OCBE); perceived meaningful work (PMW); structural equation modelling (SEM); hospitality sector

1. Introduction

The twenty-first century poses many challenges to the human race. Of those challenges facing humankind on our planet, the issue of climate change is the grandest one [1]. Much of the damage to the environment is attributed to organizations [2,3]. There have been calls from national institutions and global bodies for organizations to adopt sustainable ways of doing business [1]. Responding to these calls, organizations have shown the tendency to operate sustainably by taking environment-friendly initiatives and putting in place policies, procedures, and practices to reduce their detrimental impact on the environment [4]. Past research has revealed evidence suggesting that sustainability-oriented systems should be supported by employee pro-environmental behaviors, in order to achieve environmental goals [5].

These pro-environmental behaviors of employees have been broadly categorized into prescribed and voluntary pro-environmental behaviors. The distinction between voluntary

pro-environmental behaviors and involuntary pro-environmental behaviors on the basis of their respective efficacies warrants attention [6]. The former, also called organizational citizenship behaviors towards the environment (hereafter OCBE), have been noted to be indispensable for the organizational efforts aimed at its activities concerning environmental management in contrast to the involuntary pro-environmental behaviors, which are limited in their efficacy [7,8]. Not only effectiveness, but they also differ in terms of their respective antecedents and outcomes [6].

The success of environmental management systems such as ISO14001 has been evidenced to be primarily the function of the extent to which they are complemented by the employees through their OCBE. As per [9], approximately 13% to 29% of the total pro-environmental workplace behaviors belong to the required pro-environmental category, whereas the more significant chunk (about 70%) of the rest of the pro-environmental behaviors falls in the category of voluntary pro-environmental behaviors (i.e., OCBE). Accordingly, prior literature [10–12] has emphasized studying these organizational citizenship behaviors towards the environment (OCBE) owing to their efficacy for the effective and efficient implementation of the environmental management systems.

The need for more scientific inquiry into factors that cause employees to enact OCBE has been highlighted recently [13,14]. Additionally, among the contextual variables known for being the antecedents of OCBE, leadership remains an underexplored phenomenon [13]. Notably, a leadership style, namely environmental transformational leadership (hereafter ETL), has been cited in the extant literature as requiring more research [15]. Notably, a small body of knowledge has identified few underlying mechanisms that transmit ETL's impact on OCBE. These mediating pathways include the perceived pro-environmental climate of co-workers [15] and environmental belief [16]. Scholars have argued that for the research in this domain to proceed further, more research is needed to enrich our understanding of the interrelationship between ETL and OCBE.

As such, this study is a step in that direction. It introduced a mediating variable of perceived meaningful work in the nomological network of OCBE for examining the indirect of ETL on OCBE. In so doing, the present research endeavor sought to make a theoretical contribution by striving to answer “why” ETL impacts OCBE. By hypothesizing about the mediating role of PMW through synthesizing the literature on social information processing theory [17], the current study advances the theoretical discourse about OCBE. The study contributes to the theory by substantiating that the theoretical prism of the social information processing approach [17] can logically account for the potential role of social context in shaping the perceptions of subjective characteristics of the job, such as perceived meaningful work. Apart from theoretically developing our understanding of OCBE, the present study seeks to advance practical implications for sustainability-oriented management practitioners. To conclude, this study is aimed at investigating the role of environmental transformational leadership as the antecedent of organizational citizenship behavior towards environment (OCBE) through perceived meaningful work.

1.1. Research Significance

This research study holds the promise of theoretical contributions as well managerial implications. From a theoretical implications' standpoint, prior studies have investigated the role of environmental belief [16] and perceived environmental-climate [15] as mediating pathways through which ETL affects OCBE. This study theoretically contributes to burgeoning literature on pro-environmental behaviors by empirically testing the underlying mediating mechanism of PMW in the relationship between ETL and OCBE.

As organizational behavior is applied science, therefore, it has the responsibility to inform practitioners' practice in the field [18]. The key takeaway of this study for managers is that they should realize that they are in a unique position to set the workplace context for employees to complement the environmental management systems, policies, and procedures through their OCBE. Managers can take full advantage of their position in an employee's organizational life by clarifying how the environment-related aspects of

work can be a source of greater good to society. Additionally, the study holds relevance for tourism industry practitioners as well as scholars.

1.2. Research Objectives

- To examine the relationship between environmental transformational leadership and perceived meaningful work in predicting organizational citizenship behavior towards environment.
- To analyze the indirect (mediated) effect of perceived meaningful work on the relationship between environmental transformational leadership and organizational citizenship behavior towards environment.

1.3. Theoretical Foundation and Proposed Research Model

This conceptual study model consisted of three primary constructs (1) environmental transformational leadership (ETL) exogenous variable and (2) perceived meaningful work (PMW) as mediating variable and organizational citizenship behavior towards the environment (OCBE) as an endogenous variable. This study uses the social information approach [17] as underpinning theoretical foundation. This research examines the mediating role of PMW on the relationship between ETL and OCBE. Other than that, this study contributes to the recent shift in the research trend in the sustainability literature of focusing on green individual outcomes like OCBE in lieu of green organizational level outcomes as highlighted by scholars [19–21] in the literature. (See Figure 1).

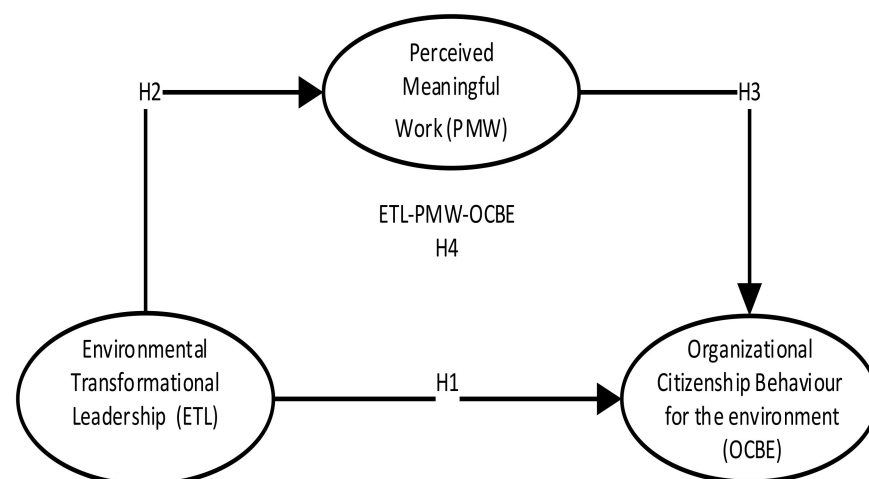


Figure 1. Conceptual model.

2. Organizational Citizenship Behavior for the Environment (OCBE)

From a historical standpoint, the construct of OCBE owes its genesis to the constructs of organizational citizenship behaviors (hereafter referred to as OCB) and pro-environmental behaviors. The authors [22,23], who are credited with the initiation of the exploration of the former, drew on the conceptualization of the OCB and pro-environmental behaviors (PEB).

Bateman and Organ [24] coined the term OCB and defined them as behaviors discretionary in nature that are neither constitutive of job description nor stated officially yet enacted by employees. Notably, past studies [25,26] have substantiated the notion that OCB and OCBE might be conceptually related to a certain extent, yet they differ empirically.

The scholarship on OCBE has also been noted to be inspired by pro-environment behaviors which is a multi-faceted and dynamic concept [9]. Boiral; Paillé and Raineri, [27] distilled the prior definitions articulated in previous studies [9,28,29] and defined pro-environmental behaviors as “all types of voluntary or prescribed activity undertaken by individuals at work that aim to protect the natural environment or improve organizational practices in this area.” (p. 8).

Further bifurcation of workplace pro-environmental behaviors is present in academic discourse at the intersection of organizational behavior and environmental psychology. Pro-environmental behaviors of employees at the workplace were split into two broad categories: prescribed and voluntary. The former is prescribed by the organization, whereas the latter are enacted by the employees of their own accord without being specified by the organization. Both types are the outcome of a different set of antecedents [15]. They also differ in terms of their relative share of total pro-environmental behaviors that occur at the workplace. As per [9], approximately 13% to 29 % of the total pro-environmental workplace behaviors belong to the required pro-environmental category. The more significant chunk of the rest of the pro-environmental behaviors falls in the category of voluntary pro-environmental behaviors. This study is situated within the latter category in that OCBE is volitional in nature.

The scholarly interest in OCBE was generated by the work of two independent groups of researchers [22,23] who urged scholars to study discretionary efforts made by the employees in the work setting towards environment and not to exclusively focus on prescribed pro-environmental behaviors that the employees are duty-bound to engage in [30]. Drawing conceptually from the construct of OCB, they coined the term OCBE for such behaviors.

It is pertinent to note here the target-specific stream of research in citizenship behaviors to whom the research on OCBE belongs. The target-specific line of inquiry deals narrowly with the particular type of OCB in terms of whom they are aimed at. "Target" could either be an individual [31] who is the recipient of the organizational citizenship behaviors, in which case it is known as OCBI [32], or an organization in which case it is called OCBO [30]. The "target" at which OCBE is directed is the environment [33].

A common thread that runs through the way different authors define OCBE is that they seem to be having a consensus among them that such behaviors are voluntary in nature, aimed at the environment, and are not prescribed by organizations [34].

For the purpose of this study, the definition conceived by [23] is being relied on. Their definition is all-encompassing and comprehensive [35]. Ref. [23] defined OCBEs as "individual and discretionary social behaviors not explicitly recognized by the formal reward system and contributing to improve the effectiveness of environmental management of organizations" (p. 223).

The three dimensions of OCBE identified by [7] include eco-initiatives, eco-civic engagement, and eco-helping. First, eco-initiatives are said to be action-oriented and also include behaviors such as making suggestions. These behavioral efforts could be directed towards either enhancing environmental performance or making improvements to the environmental practices in place in the organization [7].

Second, an eco-civic engagement related to the voluntary participation of employees in the green organizational initiatives. An employee who is supportive of the environment-oriented organizational systems and complements it through constructive behaviors such as voluntarily attending an event on environmental awareness that the company organizes could be viewed as indulging in eco-civic engagement [7].

Third, eco-helping, as the name implies, is the employee lending a helping hand to co-workers for sorting out matters concerning the environment. This dimension reflects those efforts on the part of employees, which, for example, include explaining environment-oriented practices to new entrants and also encouraging colleagues to voice their opinion on matters related to the environment [7].

2.1. Environmental Transformational Leadership

Scholars [36,37] built upon the prior understanding of transformational leadership style to conceptualize ETL. The literature trajectory from general transformational leadership to facet-specific transformational leadership can be traced back to [38], who conceptualized safety-specific transformational leadership. The dimensions of transformational leadership are focused on occupational safety. Their work spawned several studies, includ-

ing that of [39], which attempted facet-specific exploration of transformational leadership in the context of education. Interestingly, in the study concerning parenting behaviors the idea of facet-specific exploration of transformational leadership was attempted by [40]. Later on, researchers [36,37] took the idea of facet-specific exploration of transformational leadership and grafted it on the workplace environmental psychology literature by conceptualizing ETL. Although several authors have supplied the academic fraternity with definitions of ETL, this study concurs with the comprehensive way with which Chen and Chang [36] defined it as “behaviors of leaders who motivate followers to achieve environmental goals and inspire followers to perform beyond expected levels of environmental performance” (p.109). The four dimensions that combine to form the ETL construct include idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration [36].

First, idealized influence alludes to a leader offering his conduct vis-à-vis environment as a template to be emulated by the employees. The leader sets an example for an employee so that employees have a path to follow. Such gestures of leaders are driven by his moral commitment to environmental causes and his concern for future generations [15].

Second, inspirational motivation refers to the instilling of motivation to work towards the betterment of the environment among followers by the leader. It refers to the leader gently nudging employees by way of motivating them to exceed the job requirements for the sake of collective good. Leader taps their intrinsic motivation instead of extrinsic motivation and formal control structures of the organization to promote such voluntary behaviors. Once intrinsically motivated, the employees are prepared to exceed the job description thresholds [36,37].

Third, the leader appreciates and actively encourages employees to feel more than welcome to challenge conventional wisdom regarding matters about the environment by encouraging creativity, which is called intellectual stimulation. The leader stimulates employees’ intellect to allow them to figure out new and innovative ways of implementing environmental practices, procedures, and systems [36,37].

Fourth, individualized consideration is the forging of a relationship by the leader with the employee in connection with environmental matters. Having such a relationship with employees entails a leader being mindful of the employee’s needs, queries, and support requirements. A leader coaching and mentoring employees regarding the environment is exhibiting individualized consideration [36,37].

2.2. Perceived Meaningful Work

The text to follow presents the conceptual domain of the construct of the PMW based on the review of literature, beginning from the early work [41] through contemporary developments [42–44].

Individuals tend to seek meaning in their lives. Since work constitutes a major component of one’s life, hence individuals seek meaning in their work as well [43]. Religious and sociology scholars deal with the issue of meaning in lives [45], whereas meaningful work falls within the academic domain of organizational behavior scholars [46]. Without delving into the meaning in the context of life, as this does not include the remit of this thesis, the exclusive focus of the text ahead will be on meaningful work.

In the workplace psychology literature, the first reported instance of the construct of meaningful work is associated with job-characteristics theory [41]. The theoreticians [41] termed it as “meaningfulness”, instead of meaningful work as it came to be known later in the literature. They made a case for meaningfulness to be viewed as a psychological state that serves as the mediating mechanism between job characteristics and individual-level outcomes [47].

The current study concurs with the definition of [48], who defined PMW as “work that is both significant and positive in valence (meaningfulness). Furthermore, we add that the positive valence of MW has a eudaimonia (growth- and purpose-oriented) rather than hedonic (pleasure-oriented) focus” (p. 2). The three dimensions of PMW identified in the

literature include positive meaning in work, meaning-making through work, and greater good motivation [48].

Firstly, to conceptualize positive meaning, [48] leaned on previous scholarly works on PMW [41,49]. As per their understanding, positive meaning captures whether or not work holds meaning for the jobholder? If so, is it of positive nature? If both the conditions are met, then the work can be regarded as having the dimension of positive meaning [48]. Conversely, if an individual experiences meaning but it is characterized by negativity, then the dimension of positive meaning would be deemed as missing from his or her work.

Secondly, the dimension of meaning-making through work deals with the presence of meaning in one's life. Ref. [48] cited the reason for its inclusion into the construct that one cannot have an experience of meaningful work without having a meaningful life. Thus, it is pertinent to inquire about the presence of meaning outside of one's professional life, and as such, this dimension deals with that [48].

Thirdly, the dimension of greater good motivation relates to the potential impact that the work can have on others. Moreover, it deals with the element of the collective good. That is, the element of work that allows the worker to make a contribution whose beneficiary is society as a whole [48].

2.3. Hypothesis Development: Environmental Transformational Leadership and Organizational Citizenship Behavior for the Environment (OCBE)

To begin with, leadership style is the key determinant of the employee well-being, interpersonal relationships, emotions, performance, both voluntary and involuntary behaviors at the workplace [50]. The constructs concerning various leadership styles have been found to be linked with voluntary behaviors. General transformational leadership [51,52], servant leadership [53,54], ethical leadership [55,56] and spiritual leadership [57], among others, have all been found to be the predictors of such voluntary and discretionary behaviors as OCB.

Relatedly, within the literature at the intersection of environmental psychology and organizational behavior, few leadership styles, i.e., responsible leadership [58], environmentally specific servant leadership [19,59,60], and ETL [36], have been explored and found to have been playing the role of an antecedent of OCBE [61].

At their core, OCBE involves transcending self-interests and voluntarily going beyond the call of duty to engage in actions directed towards the environment [62,63]. Therefore, managers cannot impose such behaviors on employees. However, they can help create a context in the workplace wherein employees perform such behaviors of their own accord [64]. In doing so, managers demonstrate certain leadership styles [65]. Included among those styles is the transformational leadership style from which ETL conceptually originated [36,37]. This particular style of leadership is reported to have anteceded not only OCBE [16] but also green creativity [66,67], pro-environmental behaviors [37,68,69] and green product development performance [36,70].

Managers demonstrating ETL elicit voluntary actions from employees by focusing on the latter's intrinsic motivation, by heightening the level of awareness with regards to the goals to be achieved, by "donning the cap" of a role model themselves, and by encouraging employees to be innovative in their approach towards environmental matters [37]. All these behavioral initiatives, which are dimensions of ETL, by managers act as stimuli generating a response that manifests in the form of OCBE on the part of employees [61].

A study conducted by [15] found that the positive relationship between ETL and OCBE exists and is mediated by the perceived pro-environmental climate of co-workers. Ref. [16] reported similar findings that environmental belief mediated the relationship between ETL and OCBE. Based on this discussion, the following hypothesis can be derived:

Hypothesis 1 (H1): *Environmental Transformational Leadership is positively related to organizational citizenship behavior towards the environment.*

2.4. Environmental Transformational Leadership and Perceived Meaningful Work

In the extant literature, a number of antecedents of PMW have been explored including, but not limited to, job-design, working conditions [71], spirituality in the workplace [72], career-development opportunities, organizational culture, organizational policies, i.e., corporate social responsibility [73] and prevailing national culture and leadership [74].

Currently, the research domain of leadership has shifted its focus from leadership styles (e.g., transactional leadership) which are inclined towards extrinsic rewards and formal control mechanisms present in the organization to get employees to demonstrate favorable behaviors and productivity [75]. The new avenues of research in leadership literature are those where leadership is directed at the higher-order needs of employees and their intrinsic motivation [76]. ETL belongs to this category [77]. The focus of the conceptual content of ETL is on the environment [15,37]. This style of leadership drives employees towards intended goals by such mechanisms as higher-order needs and intrinsic motivation [78].

With that being so, the psychological state of PMW is experienced by employees when the higher-order need of deriving meaning from the work is met through alignment between the purpose of work and the greater good [79]. Thus, it appears logical to argue that ETL achieves this purpose of imbuing the employee's experience of work with meaningfulness by clarifying the connection between supporting environmental practices in place in the organization and the greater good of the society. When the fit between doing greater good and work becomes apparent to an employee the psychological state of PMW is experienced [80].

Numerous studies have pointed out the existence of a positive relationship between leadership and PMW. Similar to transformational leadership style [81], leadership styles that have shown a positive relationship with meaningful work are as follows: ethical leadership [82,83] and servant leadership [84]. It is noteworthy that it is not just the leadership style but also the relational perspective on the leadership (i.e., LMX leader-member exchange) that leads employees to view their work as meaningful [85].

The relationship discussed in detail above ultimately leads to a concise hypothesis given below:

Hypothesis 2 (H2): *Environmental transformational leadership is positively related to perceived meaningful work.*

2.5. Perceived Meaningful Work (PMW) and Organizational Citizenship Behavior towards Environment (OCBE)

PMW results in various positive organizational outcomes at an individual level of analysis [73,86]. PMW serves as an employee's intrinsic motivation in that it pertains to the dimension of well-being called eudemonic well-being. This dimension of well-being in positive psychology is conceptualized as being related to individuals' inherent need to construct meaning out of their work [87]. Employees' intrinsic motivation pushes them to carry out their task for its sake rather than being driven for rewards. Rewards are desired by an employee only when it comes to extrinsic motivation [88]. As posited earlier, OCBE is a set of behaviors that the employees partake of their own accord. Leaders and managers cannot compel employees to indulge in such behaviors as they are voluntary in nature [89,90]. Consequently, leaders can only motivate employees intrinsically towards OCBE [15,19].

A positive association of PMW with various individual-level outcomes has been reported in the literature. It may result in work engagement [82,91], affective commitment [92,93], job happiness [94], organizational commitment [95], and psychological empowerment [96].

Furthermore, using the theoretical lens of purposeful work behavior and cognitive-affective personality system, [97] assessed the relationship between PMW and job performance and found it to be significantly positive. Similar positive findings related to the

relationship between PMW, and job performance were also reported by [98]. Moreover, as per the research findings, [99] PMW can also impact the individual beyond their work context. They reported that PMW is an antecedent of work-life enrichment, which refers to one's quality of life outside the workplace. Relevantly, in occupational psychology and psychological well-being literature, the negative relationship between PMW and depression has been documented due to the findings of the study conducted by [100].

PMW has also been cited as a predictor of attitudinal outcomes at an individual level of analysis [44,47]. PMW has been evidenced as a source of job satisfaction by research scholars [81,94]. Past research has also found that PMW spurs employees to enact extra-role behaviors involving employees' discretion, such as OCB [101,102], and helping behavior [103]. Given that PMW has been discovered to be predicting the various above-noted individual-level outcomes that are beneficial for the organization and extra-role behaviors that are inherently discretionary, it can be reasoned that PMW translates into OCBE. In sum, the below-mentioned hypothesis logically stems from the discussion above:

Hypothesis 3 (H3): *Perceived Meaningful work is positively related to organizational citizenship behavior towards the environment.*

2.6. PMW as Mediator between ETL and OCBE

In social science research, it is imperative that the researchers push the boundaries of the academic debate by not only investigating whether or not a relationship exists between two or more social phenomena but also the answers as to "how" and "when" are of utmost importance [104]. The answers to both "how" and "when" have different statistical implications from an analytical standpoint as the former will lead to the integration of mediating variables. The latter will result in the incorporation of moderating variables in the research model [105,106]. The mediating variable lends explanation to the relationship between independent and dependent variables whereas moderating variable either strengthens or weakens the relationship.

In the current study, it is proposed that PMW serves as the mediating mechanism between ETL and OCBE based on the logic driven by the social information approach [17] and also factoring in the findings of past studies present in the literature pertinent to mediating role of PMW.

PMW has been employed in the literature as a mediating mechanism for antecedents and outcome variables operating at different levels of analyses, i.e., individual, interpersonal, group, and organizational [44]. In the contemporary academic discourse, various contextual factors have also been mentioned as influencing the performance, behavior, emotion, affect, perception and cognition of employees via the pathway of PMW [44,107]. For instance, perceived opportunities for development [108], social mission [109], ethical climate prevailing in an organization [110], HR-policies [111], corporate social responsibility perceptions [73,112] have all been witnessed to be impacting the individual-level outcomes via the mediational mechanism of PMW.

A plethora of studies entailing leadership constructs assumed PMW as a mediating variable. For instance, PMW has been framed as a mediator to lend an explanation to the impact of ethical leadership [82,83], servant leadership [84], and transformational leadership [80,81] on their followers.

Theoretically, this study argues that the perceptions of the nature of work being executed are fluid and hence influenced by other social actors such as leaders in the social context [113–115]. Using their own conduct and gestures as tools, the ETL shape the perception of work by catering to higher-order needs of individuals and by linking environment-related aspects of the job to the greater good of society [37] which in turn may lead to work being perceived as meaningful [116].

One fundamental tenet of the social information approach [17] is that social cues emanating from the conduct and behavior of leaders in the social context shape the perception held by employees in relation to their job. Thus, it is posited that employees may come

to view and experience their work as meaningful as a result of ETL. With that being so, when work attains the perceptions of being meaningful, it may serve as the motivational mechanism for employees to engage in OCBE. This rationale is also based on the fact that PMW has been found to be empirically correlated with behavioral outcomes that depend on the discretion of employees similar to that of OCBE, for instance, OCB and helping behaviors [104]. In the light of the foregone discussion, the following is being hypothesized:

Hypothesis 4 (H4): *Meaningful work mediates the relationship between environmental transformational leadership and organizational citizenship behaviors towards the environment.*

3. Research Methodology

A quantitative methodology was undertaken for this study. In line with the objectivist ontology, positivist epistemology, and deductive approach, this study was designed from quantitative methodology. Quantitative methodology lays an emphasis on quantitative data, requires random sampling, and necessitates the research questions to be fixed. It entails structured data collection instruments such as questionnaires. It is concerned with the generalization of the study results [117–119]. As such, a survey design was chosen and, consequently, personally administered questionnaires were deployed.

3.1. Target Population

Literature on sustainability indicates that upscale hotels are at the forefront of environmentally friendly practices [20,120]. Thus, five-star hotels were decided upon for the sample to be drawn. At the time of data collection, the combined total headcount of three five-star hotels stood at approximately 1592.

3.2. Sample Size

From the sampling frame of 1592, in total, 470 respondents were randomly chosen. Section 3.4 illustrates the approximate number of total employees in the three five-star hotels. In accordance with [121], the required sample size was estimated to be 310 at a 95% confidence level and 5% margin of error. Although the necessary sample size was 310, in anticipation of an approximately 70% response rate, 470 questionnaires were distributed. Questionnaires were self-administered (Refer to Appendix A, Tables A1 and A2).

This study utilized simple random sampling. As per this technique, the researcher randomly selects the participants, eliminating human biases. This technique allows an equal chance for every participant to become part of the survey [118].

3.3. Back Translation

Considering that the respondents hailed from Pakistan, where Urdu is the national language, back-translation in accordance with the best practices prescribed by [122] was carried out for the sake of semantic equivalence. At first, all questionnaire items were translated into Urdu by a bilingual expert from academia, and then another bilingual expert, also from academia, translated them back into English. Consistency was found between translations by both of them (Refer to Appendix B, Figure A1).

3.4. Data Collection and Response Rate

This section provides the trail of the way the data collection occurred. Acquaintances from the social circle of the scribe of this study were approached, who in turn put the author in touch with the members of the managerial staff of the five-star hotels. They were provided a brief overview of the purpose of the study and its potential implications. They were categorically reassured about the confidentiality of the data and were informed that the data would be used solely for research purposes. The management of hotels was unwilling to grant access to the complete list of the names. However, they agreed to share the list of the designations of their employees. MS Excel v.2013 was utilized for detecting

unengaged responses. The standard deviation of each respondent was assessed, and those with less than 0.5 standard deviations were eliminated.

In total 17 respondents (4,15,21,27,67,70,93,118,128,155,172,233,237,251, 260,261,310) owing to them being below the threshold of 0.5 standard deviation were excluded from the further analyses. After accounting for missing values, unengaged responses, and normality, the remaining 311 respondents out of 328 were left to be considered for further analysis, as shown in Table 1.

Table 1. Response Rate and Data Cleaning Summary.

Survey Method	Questionnaire	Quantity	p %
Total Distributed Questionnaire	Number	470	100%
Paper-Survey	Returned	328	69%
	Unreturned	147	30.9%
Unusable Cases and Outliers Removed		17	5.1%
Clean Data 311 Out of 328 Used for (SEM) Analysis		311	94.8%

3.5. Survey Instruments

Personally-administered questionnaires were employed to obtain responses of respondents. The questionnaire had two parts. The first part elicited information from the respondents regarding demographics whereas the second part was devoted to the item of the scales. Scales present in the previous literature were utilized for this purpose. Unless otherwise noted, all variables were gauged on 5-point Likert scales. For measuring OCBE, a 13-item scale developed by Boiral and Paillé [1] was adopted. Sample item includes “I stay informed of my company’s environmental initiatives”. A 6-item scale that this study relied upon for measuring the construct of ETL was originally constructed by Chen and Chang (2013) [3] and has previously been used in the prior studies conducted in the hospitality sector by scholars (see Mittal and Dhar) [6]. Sample item includes “The leader stimulates the organization members to think about green ideas”. PMW was measured by using a 10-item scale developed by Steger et al. [5], which is a widely-used and oft-cited scale in the literature [7]. Sample item includes “I have discovered work that has a satisfying purpose”.

4. Data Analysis and Results

Quantitative data analysis presents results and interpretation of data analyzed through structural equation modelling (SEM) technique using AMOS 24. Quantitative data analysis consisted of data screening, detection of missing values and outliers, normality assessment, linearity, and multicollinearity, and finally, assessment of measurement and structural models through SEM technique using AMOS 24. Initially, the researcher distributed a total of 470 self-administrated questionnaires (SAQs) among employees of three five-star hotels in Pakistan. In response, 328 questionnaires were returned, indicating a 69% response rate. A response rate above 50% is good enough for the generalization of results [123–125]. Moreover, normality tests confirmed that 17 cases have normality issues. Thus, after removing 17 cases, the cleaned data of 331 was used for further SEM analysis in the next stage to fulfill the required minimum sample size for SEM, which is 200 responses [125–127]. See Table 1.

Analysis Before performing SEM assumptions, e.g., univariate, and multivariate normality, linearity, homoscedasticity, and multicollinearity tests were performed using SPSS.

4.1. Descriptive Statistics

Descriptive statistics enable the interpretation with regards to the demographic characteristics of the sample. Of the total 311 respondents whose responses were found to be valid for data analyses after accounting for outliers and unengaged responses, a larger chunk of them falls in the age group of 25 to 30 years (i.e., 51%). In terms of gender, 89.068% were

male whereas 10.9% were female. The demographic of marital status in Table 2 depicts 55.3% of them being married and the remaining 44.6% to be single. Of the respondents, 38.9% had an educational background in arts followed by 31% who had a qualification in management. However, 18.6% had a qualification in the hospitality-related subject matter. As far as educational qualification is concerned, 16.7% had Bachelors (16 years), 11.2% had Bachelors (14 years), 30.2 % had an intermediate level education, 16.7% revealed their education to be diploma-level and 6.4% had Masters (16 years). Upon being asked for their total work experience, 32.4% of the respondents chose the category of 4 years to 6 years, 20.5% chose the category of 1 year to 3 years, 13% chose the category of 10 years to 12 years. In terms of their length of service with their current employer, 63.6% of the respondents belong to the category 1 years to 3 years, 1.6% of them belong to the category of fewer than 1 years, 27% of them belong to the category of 4 years to 6 years, and 5% belong to the category of 7 years to 9 years. Of the research subjects, 54% revealed themselves to be the occupants of technical positions in their organizations, 30.5% chose the administrative staff category, and 14.4% belong to the type of manager /supervisor positions. 21 % of the respondents came from the housekeeping department, 19.2% came from the food and beverages department, 16% came from the kitchen department, 7.7% came from the marketing and sales department, 7% came from the accounts and finance department, 5.7% came from the IT/Engineering department, 4.8% came from the front office department, 3.5% came from the rooms department, 3.2% came from the human resource department, 5.1% came from the security department, 0.96% came from the quality and compliance department, 0.6% came from the laundry department, 0.64% came from the material management department and 3.8% preferred to choose the category of “other department”.

Table 2. Descriptive Statistics.

Demographic Characteristics	Frequency	Percentage
Age		
18–24	60	19.3
25–30	159	51.1
31–35	51	16.4
36–40	19	6.1
41–45	13	4.2
46–50	8	2.6
51 and beyond	1	3.0
Total	311	100.0
Gender		
Male	277	89.1
Female	34	10.9
Total	311	100.0
Single		
Single	139	44.7
Married		
Married	172	55.3
Total	311	100.0
Educational Background		
Arts	121	38.9
Sciences	11	3.5
Management	97	31.2
Engineering/IT	19	6.1
Hospitality	58	18.6
Other	05	1.6
Total	311	100.0
Highest Education Degree		

Table 2. Cont.

Demographic Characteristics	Frequency	Percentage
Metric	3	1.0
Intermediate	94	30.2
Bachelors (14 years)	35	11.3
Masters (16 years)	20	6.4
Bachelors (16 years)	52	16.7
Masters (18 years)	04	1.3
Diploma	52	16.7
MBA	51	16.4
Total	311	100.0
Work Experience		
1–3	64	20.6
4–6	101	32.5
7–9	49	15.8
10–12	42	13.7
13 and Beyond	55	17.7
Total	311	100.0
Length of service		
Less than 1	5	1.6
1.3	198	63.7
4–6	84	27.0
7–9	16	5.1
10–12	06	1.9
13 and Beyond	2	6
Total	311	100.0
Position		
Technical Staff	171	55.0
Administrative Staff	95	30.5
Manager/Supervisor	45	14.5
Total	311	100.0
Department		
Housekeeping	66	21.2
Food and Beverages	60	19.3
Human Resource	10	3.2
Account/Finance	22	7.1
Sales/Marketing	24	7.7
Front Office	15	4.8
Rooms	11	3.5
Kitchen	50	16.1
Security	16	5.1
IT/Engineering	18	5.8
Quality and compliance	03	1.0
Laundry	02	0.6
Material Management	02	0.6
Other	12	3.9
Total	311	100.0

To perform SEM analysis initially, the measurement model was analyzed by assessing standardized factor loadings, validity, and reliability of each construct. To achieve a good model fit is required to make some adjustments. The first step was to remove all items with factor loading less than 0.5 [125,128] as the revised model shown in Figure 2.

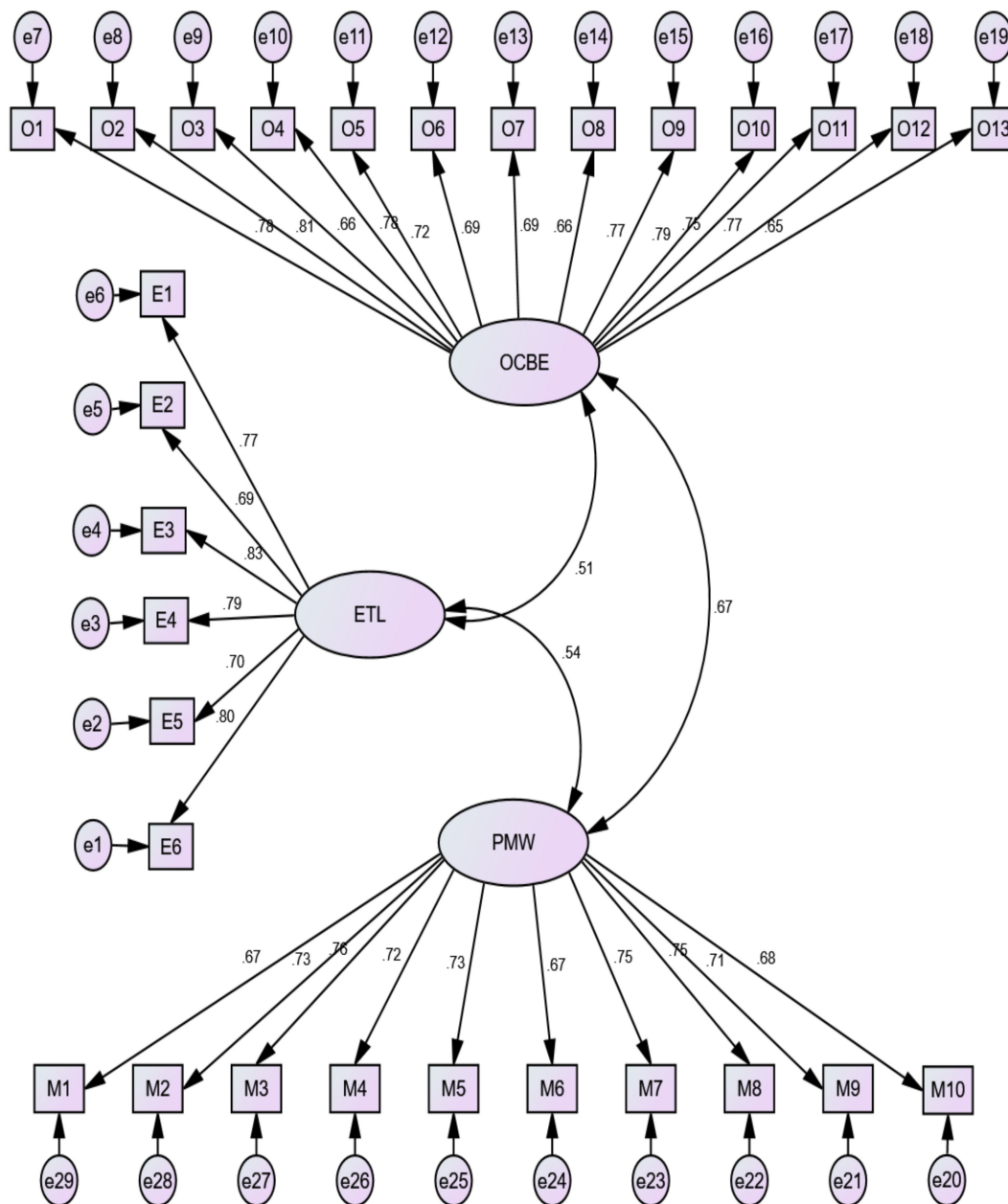


Figure 2. Measurement Model. Notes: M (1 to 10) = Perceived Meaningful Work, E (1 to 6) = Environmental Transformational Leadership, O (1 to 13) = Organizational Citizenship Behavior towards Environment, e (1 to 29) = error term.

4.2. Convergent Validity

The assumption of convergent validity (CV) is based on substantiating three essential criteria. First, all standardized loading estimates should be statistically significant with the value of 0.50 or higher, indicate that all items converge on their respective construct. The second criterion is the average variance extracted (AVE) of 0.50 or higher is evidence of adequate convergence. Third, the criterion is construct reliability (CR) of 0.7 or higher indicate good reliability. All these criteria confirm that the CV assumption is not violated in this study [124,125] see Table 3.

Table 3. Convergent Validity.

Constructs	Items	Factor Loading (I)	CR	AVE
Environmental Transformational Leadership (ETL)	ETL06	0.805	0.894	0.586
	ETL05	0.702		
	ETL04	0.790		
	ETL03	0.829		
	ETL02	0.686		
	ETL01	0.772		
Organizational citizenship behaviour the environment (OCBE)	OCBE13	0.647	0.938	0.540
	OCBE12	0.767		
	OCBE11	0.752		
	OCBE10	0.794		
	OCBE09	0.775		
	OCBE08	0.661		
	OCBE07	0.694		
	OCBE06	0.686		
	OCBE05	0.720		
	OCBE04	0.776		
	OCBE03	0.656		
Perceived Meaningful Work (PMW)	PMW10	0.683	0.914	0.514
	PMW09	0.705		
	PMW08	0.747		
	PMW07	0.748		
	PMW06	0.667		
	PMW05	0.726		
	PMW04	0.721		
	PMW03	0.764		
	PMW02	0.732		
	PMW01	0.673		

4.3. Discriminant Validity

Discriminant validity assumption violated if the value of correlation among exogenous variables exceeds the square root of average variance extraction (AVE). Next, to calculate discriminant validity, master validity options were used by incorporating standard regression weights and correlation of all constructs. AMOS 24 output, as shown in Table 4, confirmed that the square root of the AVE value (diagonal value in bold number) is greater than the inter-construct correlation value. Thus, the assumption of discriminant validity is not violated. Once the measurement model is confirmed next step was to assess the structural model to test the proposed hypotheses.

Table 4. Convergent Validity.

Constructs	CR	AVE	ETL	OCBE	PMW
ETL	0.894	0.586	0.766		
OCBE	0.938	0.540	0.508 ***	0.735	
PMW	0.914	0.514	0.537 ***	0.669 ***	0.717

*** Inter-construct correlation value.

4.4. Structural Model (Direct Effects)

This study model consisted of three variables, i.e., ETL exogenous, PMW exogenous mediating, and OCBE endogenous variables. This section explains the direct relationship between all three main variables, namely ETL, PMW, and OCBE.

4.4.1. Relationship between ETL, PMW, and OCBE

The first objective of the current study was to investigate the relationship between ETL and OCBE in predicting sustainable performance. This objective (1) is composed of three key hypotheses. As evidenced in Figure 3 structural model results confirmed that hypothesis (H1) has a positive relationship between ETL and OCBE with path coefficient value $b = 0.217$, critical ratio $t = 4.443$, and $p = 0.000$. Hypothesis H2: ETL positively related with PMW path coefficient value $b = 0.487$, critical ratio $t = 9.824$, and $p = 0.000$. Structural model results also confirmed H3: the direct positive relationship between PMW and OCBE with path coefficient value $b = 0.527$, critical ratio $t = 10.785$, and $p = 0.000$, as shown in Figure 3.

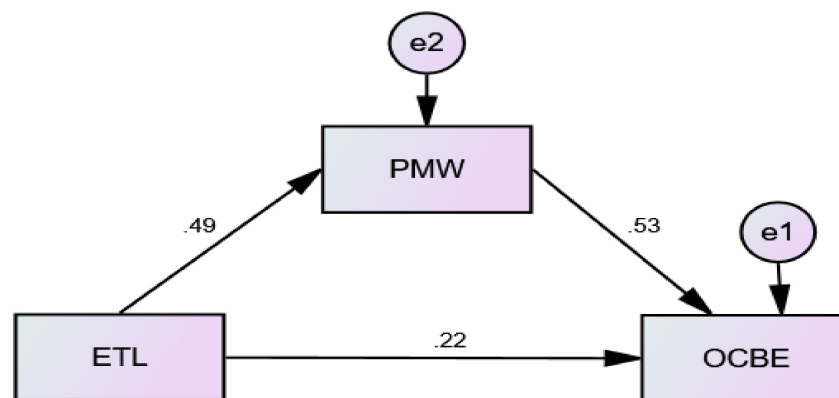


Figure 3. The relationship between environmental transformational leadership (ETL), perceived meaningful work (PMW) and organizational citizenship behavior for the environment (OCBE).

Table 5 presents the summary of all direct hypotheses of ETL with OCBE and PMW. All three hypotheses (H1, H2, and H3) were supported.

Table 5. Structural Model Direct Effects.

S. No	Main Hypotheses	S.E.	C.R.	p	Results
H1	ETL→OCBE	0.217	4.443	0.000	Accepted
H2	ETL→PMW	0.487	9.824	0.000	Accepted
H3	PMW→OCBE	0.527	10.785	0.000	Accepted

4.4.2. Direct and Indirect Effect of ETL on OCBE with EMS as Mediator

Hypothesis H3 proposed that perceived meaningful work (PMW) mediates the relationship between environmental transformational leadership and organizational citizenship behavior towards the environment. To calculate the indirect effect (ETL→PMW→OCBE). The first direct effect of ETL on OCBE was calculated. Structural model results confirmed the direct effect of ETL on OCBE with $b = 0.47$, critical ratio $t = 4.443$, and $p = 0.000$, as shown in Figure 4

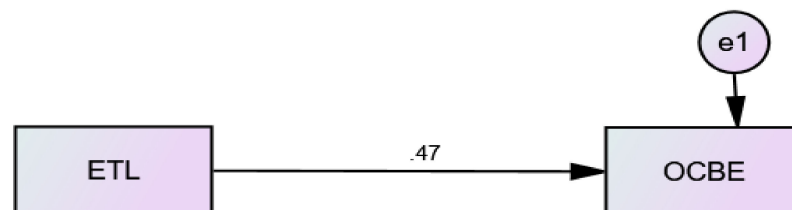


Figure 4. Direct effect ETL on OCBE without PMW.

Structural model results revealed that the direct effect of ETL on OCBE is reduced from $b = 0.47$ to $b = 0.22$, as shown in Figure 5.

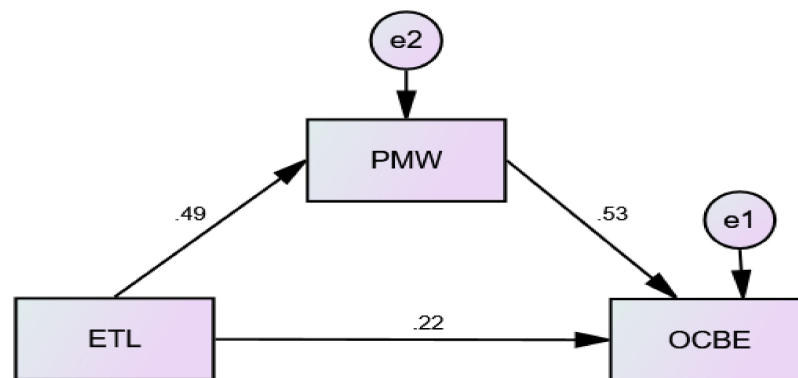


Figure 5. Indirect effects of ETL on OCBE through PMW.

However, the direct effect is still significant with p -value $0 = 0.000$. Next, the indirect effect of ETL on OCBE and mediation path (ETL \rightarrow PMW \rightarrow OCBE) was calculated.

Mediation path-1 PMW as a Mediating Variable between ETL and OCBE

$$Y (\text{OCBE}) = \alpha_0 + \beta_1 (\text{ETL}) + \mu \quad \beta_1 = 0.474 \quad (1)$$

$$Y (\text{PMW}) = \beta_0 + \beta_2 (\text{ETL}) + \mu \quad \beta_2 = 0.487 \quad (2)$$

$$Y (\text{OCBE}) = \gamma_0 + \beta_3 (\text{PMW}) + \mu \quad \beta_3 = 0.527 \quad (3)$$

Direct effect without mediator = 0.474

Indirect effect = $0.487 \times 0.527 = 0.257$

Total effect = $0.474 + 0.257 = 0.731$

VAF = Direct effect / Total effect = $0.625/0.841 = 64\%$

Therefore, the indirect effect was 0.257 with a p -value of 0.000. Next, to check whether the indirect effect is significant or not, bootstrapping was employed with 1000 iteration to identify the p -value. With reference to Table 6 bootstrapping p -value was calculated as (0.000), which ultimately confirmed mediation [125,129]. However, based on [130], since ETL direct effect is still significant on OCBE with (PMW) mediating variable so, partial mediation is observed. Thus, from mediation analysis, it is concluded that PMW mediates the relationship between ETL and OCBE. Hypothesis H4 was supported based on the proposed mechanism by [125,129,130]. The next step is to compute the variance account for (VAF) as the ratio between indirect and direct effect to determine the strength of this mediation. The VAF complements the assessment of mediation by bootstrapping procedure. The VAF $> 80\%$ indicates full mediation, $20\% \leq \text{VAF} \leq 80\%$ shows partial mediation, while VAF $< 20\%$ assumes no mediation. In this case, VAF is 64% showing partial mediation.

Table 6. Summary of Mediation Analysis (Indirect Effects).

No.	Main Hypothesis	Direct Beta without Mediator	CR and Sig	Direct Beta with Mediator	CR and Sig	Indirect Beta	p = Value Bootstrap	Mediation Type Observed
H4	ETL \rightarrow PMW \rightarrow OCBE	0.474	9.470 (0.000)	0.217	4.443 (0.000)	0.257	0.000	Partial mediation

5. Discussion on Research Findings

The study was primarily based on the knowledge gaps pinpointed by the scholars [13,15,16] regarding the contextual factors that lead employees to go an extra mile even beyond the requirements of their job description for the sake of the environment. They emphasized ETL and posited that this research stream could progress further by focusing on the underlying mediational mechanisms between ETL and OCBE. Thus, a research

framework was generated using the theoretical prism of social information processing theory [17] and empirically tested using data collected from the hotel industry of Pakistan.

5.1. Objective 1: Relationship between ETL and PMW in Predicting OCBE

The findings have lent support to the hypothesized relationship in H1, i.e., there exists a positive relationship between ETL and OCBE. The results of H1 are in consonance with the related studies [15,16] as they also found similar evidence. The findings can be theoretically explained in the light of relevant literature. That is, ETL taps the higher-order needs of the employees and relies on the intrinsic motivation of the employees [68]. Additionally, the ETL gives gestures encouraging their followers to feel more than welcome to innovate with matters pertaining to the environment [131]. More importantly, another defining behavioral dimension of such leaders is their capability to motivate employees to transcend the specified requirements of their job [8,36,132]. Thus, it seems logical to infer from the findings that the aforementioned distinguishing behavioral dimensions of ETL eventually lead employees to engage in OCBE.

The results have provided empirical evidence supporting H2, i.e., there happens to be a positive relationship between ETL and PMW. The results also align well with the findings of prior studies [81–83] that found leadership to be positively related to PMW. The findings specified above can be explained by approaching them through the theoretical rationale. Employees experience the psychological state of meaningfulness when their work holds the potential to make a pro-social difference in the world [133,134]. As mentioned earlier, that ETL clarifies the connection between the environment-specific aspects of the work and the nobility associated with it [15]. Thus, it can be reasoned that these behaviors of ETL, in turn, enables employees to perceive their work to be meaningful.

The findings have affirmed H3, i.e., there is a positive relationship between PMW and OCBE. The results are consistent with the findings of prior studies [44,47]. The findings seem plausible in the light of an argument that holds that individuals pursue tasks merely for the sake of them when they are intrinsically motivated [16]. As such, when work is perceived to be meaningful, individuals feel themselves to be intrinsically motivated. Thus, they enact OCBE that represents volitional behaviors.

5.2. Objective 2: Mediating Role of PMW on the Relationship between ETL and OCBE

Findings have yielded evidence supportive of H4, i.e., PMW acts as a mediational mechanism transmitting the influence of ETL on the outcome variable of OCBE. Results are consistent with findings of relevant prior studies [81,82,135,136]. The findings can be interpreted in the light of social information processing theory [17]. The theory holds that individuals make sense of their work on the basis of the cues emitted by the behaviors of other social actors in their social context. Moreover, [17] argued that leaders hold an important place in the social context of the individuals. Therefore, their behaviors influence the manner in which work is viewed by an employee. As the conceptual content of ETL is focused on environment-specific aspects of the job [67], therefore it can be posited that due to the ETL of managers, their subordinates will perceive their work to be meaningful and consequently enact OCBE.

5.3. Research Implications

The study purposefully strived to make a valuable theoretical contribution to the interdisciplinary academic discourse at the intersection of sustainability and organizational behavior. As such, this study derives its theoretical base from the social information approach [17]. While prior studies upon whom this study was built utilized the theoretical framework of the theory of normative conduct [15], and self-determination theory [16], the current research endeavor employs the social information approach [17]. Thus, it sought to push the boundaries of the theoretical debate concerning voluntary pro-environmental behaviors such as OCBE by integrating the tenets of the social information approach [17].

Relatedly it identifies a new mediating variable in the nomological network connecting ETL with OCBE. Previously, pro-environmental climate [15] and environmental belief [16] have been conceptualized as underlying pathways connecting ETL and OCBE. The present research endeavor proposed as well as testing the mediational role of perceived meaningful work in the relationship between ETL and OCBE.

The theoretical contribution of the current study can be gauged against the yardstick devised by [137]. As per the criteria established by [137] for vetting theoretical contribution, scholars can make a theoretical contribution in terms of what, how, why, where, and when of the theory [138]. The current study has contributed in terms of “why” as it delineates the underlying mediational mechanism of perceived meaningful work in its attempt to answer “why” environmental transformational leadership style of managers leads to part of employees’ organizational citizenship behavior towards the environment.

The practices formulated and implemented by management practitioners are informed by the research output of management scholars [139]. As far as the present study is concerned, it does so by bringing to fore the evidence of how occupants of managerial positions can get their subordinates to indulge in OCBE.

In the recent past, there has been a surge in the concern for the sustainability and environmental causes in the corporate world in general and the hotel industry in particular [140]. Primarily, it has been observed that upscale hotels are at the forefront of adopting sustainable ways of conducting their business [20]. Resultantly they implement environmentally friendly initiatives, practices, and systems [141,142]. The success of these steps undertaken by them is a function of the degree to which their rank-and-file employees complement them through their behaviors that are neither officially specified nor formally required, for instance, OCBE [5]. Accordingly, upscale hotels and their managers are interested in knowing what could drive such behaviors [16]. This study points to the fact that adopting ETL could be fruitful for this purpose. The present research cites the reason that the adoption of ETL by managers will render the work more meaningful, which in turn will cause employees to enact OCBE.

More precisely, the study at hand underscores the need for managers to gently push the employees to enact voluntary pro-environmental behaviors by demonstrating behaviors that constitute ETL. As per the findings of this study, managers need to adopt ETL by encouraging employees to be innovative in their approach towards environmental matters, being role model related to environmental matters, motivating them to exceed the threshold set by their official job requirements and attending to their queries and needs related to environmental matters.

Another insight that holds relevance for the practitioners in the field is that through adopting ETL, they can shape the perceptions of their work to render it more meaningful. Managers may build a connection of the contribution made by employees toward the environment with the larger societal causes of sustainability and preserving the environment. Moreover, the results of this research suggest that efforts made by ETL to imbue the experience of employees with meaningfulness related to their work can be very fruitful in getting them to enact voluntary pro-environmental behaviors such as OCBE that are desired by their organizations for the success of the environmental-friendly initiatives.

5.4. Limitations and Direction for Future Research

It is essential that alongside highlighting the theoretical and practical contribution of this study, its limitations be acknowledged. As such, the current study suffers from the methodological limitation of cross-sectional time horizon, which stands in the way of making any substantive inference regarding the causal relationship. Cross-sectional designs are prone to common-method bias [143]. Admittedly, the current study being cross-sectionally designed also suffers from this limitation. Although Herman’s single factor test was conducted to detect common method bias it is only an analytical tool for detection of its presence, and it ought not to be considered a remedy for it. Thus, the

findings of the current study ought to be read with caution keeping in mind the design limitation of cross-sectional data that is vulnerable to common method bias.

Another design flaw that the current study suffers from is that of single-source data. Ideally, the design of this study should have been such that the questions related to the construct of environmental transformational leadership style ought to have been attempted by the managers of the hotels. The participation of the employees in this research study should have confined to the extent of only getting them to attempt questions related to the constructs of the organizational citizenship behavior towards the environment and perceived meaningful work. However, the entire questionnaire of this study was filled out solely by the employees of hotels.

Despite its methodological strength of using simple random sampling, a limitation that exists is that erroneously non-response bias, as well as late-response bias, were not assessed. Thus, the findings of the current study need to be read, bearing in mind the possibility of the existence of non-response as well as late-response bias.

Another limitation of the current study that needs to be mentioned is that the constructs of its framework are multi-dimensional in nature. However, the current study has taken the liberty to analyze them as holistic constructs. An additional source of limitation for the present study is the misalignment between the nature of constructs and the unit of analysis. The constructs of the framework of the current study are multi-level in nature. However, the unit of analysis was conceptualized at an individual level of analysis.

There is much left to be desired in terms of the generalizability of the findings. Data were obtained from Pakistan's hospitality industry, thereby limiting the scope of the generalizability of this study to other industrial as well as cultural contexts. The correlational design implemented for the purpose of this study is another limitation that does not permit us to infer a concrete conclusion regarding the causality of the relationship among variables with certainty.

Research endeavors in the future can build on this study in multiple ways. One possible fruitful avenue could be to integrate other mediators in the existing research model. While the present study integrated a psychological mechanism embedded in the perceptions of the work, namely PMW, as an underlying pathway through which the ETL elicits OCBE, future research endeavors can investigate other psychological mechanisms that are embedded in the perception of self, relationships, and pro-social causes, among others. Moreover, future research to be conducted can advance this stream of research by exploring the possibility of contextual variables that may be social, interpersonal, and organizational in nature.

From a theoretical standpoint, the study at hand grounded its hypotheses in the social information processing approach. Relatedly, the scholarship on OCBE can be taken forward by looking at it through theoretical prisms other than social information approach such as conservation of resource [144,145], trait activation theory [146], and cognitive, affective systems theory of personality [147], to name a few. Moreover, from an analytical standpoint, future researchers may gain novel insights by conducting a multi-dimensional analysis of the multi-dimensional constructs of the current study.

Novel contributions can be made in the future by approaching the phenomenon of OCBE from a multi-level modeling perspective as the constructs of the current study are multi-level in nature. Furthermore, as far as common method bias is concerned, it is possible to eliminate its possibility at the design stage [143]. The only procedural remedy that the researchers can opt for at the design stage is that of the utility of multi-wave and multi-source data. Accordingly, researchers pursuing this stream of research in the future are recommended to utilize multi-wave and multi-source data in order to assess the robustness of the findings of the current study.

Another promising avenue for future studies may be implementing experimental design, which might be helpful for drawing a concrete conclusion regarding causality. Future research can replicate the study in diverse industrial settings to expand the generalizability of the findings revealed by this study. Preferably, those sectors which are notorious for

harming the environment can yield more meaningful insights, such as the manufacturing sector and mining sector, etc.

6. Conclusions

The present research endeavor invokes social information processing theory [17] to enrich the contemporary understanding of the phenomenon of organizational citizenship behavior towards the environment. The study contributes to the budding literature on the antecedents of organizational citizenship behavior towards the environment. It hypothesized as well as found empirical evidence to be in support of the mediational role of perceived meaningful work in the relationship between environmental transformational leadership and organizational citizenship behavior towards the environment. Apart from theoretically contributing to the interdisciplinary discourse, the study holds the potential to serve as a guidepost for the managers of green organizations. It shows how adopting an environmental transformational style may lead employees to indulge in organizational citizenship behavior towards the environment. In a nutshell, the study is an attempt to keep the flame of interdisciplinary curiosity alive, combining literature of environmental psychology as well as organizational behavior.

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Conflicts of Interest: The authors declare no conflict of interest.

Appendix A

Survey Questionnaire (English/Urdu)

Dear Respondent,

This questionnaire is meant solely for academic and research purposes. This questionnaire is based on the questions about the impact of leadership on environment-friendly workplace behaviors of employees. You are requested to participate in this study. All the personal and professional information provided by you will be kept confidential come what may. Thanks in anticipation for agreeing to be a part of this research project.

Part I

Table A1. Part I.

Age	
Gender	
Marital Status	
Highest Education level	
Educational background	
Working experience	
Length of service	
Position	
Department	

Part II

Instructions: Please answer the following questions related to Environmental Transformational Leadership (ETL), Organizational Citizenship Behaviour for the Environ-

ment (OCBE) and Perceived Meaningful Work (PMW) by showing your level of agreement/disagreement with each of the following statements. Please circle one option on 5-point likert-scale (Strongly disagree =1, Disagree =2, Neutral =3, Agree =4, Strongly agree = 5).

Table A2. Part II.

Items	SD	D	N	A	SA
My manager inspires the organization members with the environmental plans.	1	2	3	4	5
My manager provides a clear environmental vision for the members to follow.	1	2	3	4	5
My manager gets the organization members to work together for the same environmental goals.	1	2	3	4	5
My manager encourages the organization members to achieve the environmental goals.	1	2	3	4	5
My manager acts with considering environmental beliefs of the organization members.	1	2	3	4	5
My manager stimulates the organization members to think about green ideas.	1	2	3	4	5
I spontaneously give my time to help my colleagues take the environment into account in everything they do at work.	1	2	3	4	5
I encourage my colleagues to adopt more environmentally conscious behavior.	1	2	3	4	5
I encourage my colleagues to express their ideas and opinions on environmental issues.	1	2	3	4	5
I spontaneously speak to my colleagues to help them better understand environmental problems.	1	2	3	4	5
Even when I am busy, I am willing to take time to share information on environmental issues with new colleagues.	1	2	3	4	5
I actively participate in environmental events organized in and/or by my company.	1	2	3	4	5
I undertake environmental actions that contribute positively to the image of my organization.	1	2	3	4	5
I volunteer for projects, endeavors or events that address environmental issues in my organization.	1	2	3	4	5
In my work, I weigh the consequences of my actions before doing something that could affect the environment.	1	2	3	4	5
I voluntarily carry out environmental actions and initiatives in my daily work activities.	1	2	3	4	5
I make suggestions to my colleagues about ways to protect the environment more effectively, even when it is not my direct responsibility.	1	2	3	4	5
I suggest new practices that could improve the environmental performance of my organization.	1	2	3	4	5
I stay informed of my company's environmental initiatives.	1	2	3	4	5
I have found a meaningful career.	1	2	3	4	5
I view my work as contributing to my personal growth.	1	2	3	4	5
Items	SD	D	N	A	SA
My work really makes no difference to the world.	1	2	3	4	5
I understand how my work contributes to my life's meaning.	1	2	3	4	5
I have a good sense of what makes my job meaningful.	1	2	3	4	5
I know my work makes a positive difference in the world.	1	2	3	4	5
My work helps me better understand myself.	1	2	3	4	5
I have discovered work that has a satisfying purpose.	1	2	3	4	5
My work helps me make sense of the world around me.	1	2	3	4	5
The work I do serves a greater purpose.	1	2	3	4	5

Appendix B

Urdu Questionnaire

حصہ اول

	عمر
	جنس
	ازدواجی حیثیت
	تعلیمی قابلیت (ڈگری)
	تعلیمی پس منظر
	کل تجربے کا عرصہ
	موجودہ ادارے سے وابستگی کا عرصہ
	عہدہ (پوزیشن)
	شعبہ (ڈیپارٹمنٹ)

حصہ دوم

پہلیاٹ: مندرجہ ذیل سوالات ماحول دوست قیادت، رضا کارانہ طور پر اپنائے گئے ماحول دوست طرز عمل اور ہامنی کام پر مبنی ہیں۔ ازراہ کرم اپنی رائے کے اظہار کی نشاندگی ہر سوال کے سامنے دیئے گئے چار میں سے کسی ایک جواب کے گرد گول دائرہ لگا کر کریں۔

سوالات	بھرپور اختلاف	اختلاف	نہیں جانبدار اتفاق	بھرپور اتفاق
میرے افسران ہالا ادارے سے منسلک افراد کو ماحول دوست منصوبہ بندی سے متاثر کرتے ہیں۔	1	2	3	4
میرے افسران ہالا ادارے سے منسلک افراد کو ماحول دوستی سے متعلق واضح آگہی فراہم کرتے ہیں۔	1	2	3	4
میرے افسران ہالا ادارے سے منسلک تمام افراد کو ماحول دوستی سے متعلق مقاصد پر یکساں طور پر کاربند رکھتے ہیں۔	1	2	3	4
میرے افسران ہالا ادارے سے منسلک ان افراد کی حوصلہ افزائی کرتے ہیں جو ماحول دوست مقاصد کو حاصل کرتے ہیں۔	1	2	3	4
میرے افسران ہالا ادارے سے منسلک افراد کی ماحول سے متعلقہ رائے کو مدنظر رکھتے ہوئے اقدام اٹھاتے ہیں۔	1	2	3	4

Figure A1. Cont.

5	4	3	2	1	میرے افسران بالا ادارے سے منسلک افراد کی ماحول دوستی کے حوالے سے سوچنے پر حوصلہ افزائی کرتے ہیں۔
5	4	3	2	1	میں بے ساختہ اپنا وقت ساتھی ملازمین کی مدد کرنے میں صرف کرتا ہوں تاکہ وہ اپنے ہر کام میں ماحول دوستی کو ملحوظ خاطر رکھیں۔
5	4	3	2	1	میں اپنے ساتھی ملازمین کی مزید ماحول دوست طرز عمل اپنانے کے حوالے سے حوصلہ افزائی کرتا ہوں۔
5	4	3	2	1	میں اپنے ساتھی ملازمین کی ماحول دوستی کے حوالے سے اپنے خیالات اور رائے کا اظہار کرنے کے حوالے سے حوصلہ افزائی کرتا ہوں۔
5	4	3	2	1	میں بے ساختہ اپنے ساتھی ملازمین سے ہمکلام ہوتا ہوں تاکہ انہیں ماحول دوستی سے متعلق دشواریوں کو سمجھنے میں مدد ملے۔
5	4	3	2	1	خفا کہ جب میں مصروف بھی ہوں تب بھی اپنے ادارے سے وابستہ نئے ساتھیوں کو ماحول دوستی کے حوالے سے معلومات فراہم کرتا ہوں۔
5	4	3	2	1	میں اپنے ادارے کے زیر انتظام ماحول دوستی کے حوالے سے منفقہ تقریبات میں کافی متحرک ہو کر شامل ہوتا ہوں۔

سوال	بھرپور اختلاف	اختلاف	غیر جانبدار	اتفاق	بھرپور اتفاق
اے ایسے ماحول دوست اقدامات اٹھاتا ہوں جن سے میرے ادارے کا مثبت تشخص اجاگر ہو۔	5	4	3	2	1
میں خود کو رضاکارانہ طور پر ایسی تمام کادشوں کے لئے پیش کرتا ہوں جو کہ میرے ادارے کے ماحول دوستی کے حوالے سے مسائل کے تدارک کا باعث بنتی ہوں۔	5	4	3	2	1
میں اپنے پیشوراند امور میں اپنے کسی بھی عمل سے پہلے اُس کے ماحول پر مرتب ہونے والے اثرات کا پیشگی جائزہ لیتا ہوں۔	5	4	3	2	1
میں اپنے پیشوراند امور میں رضاکارانہ طور پر ماحول دوست اقدام اٹھاتا ہوں	5	4	3	2	1
تاکہ جب یہ میری ذمہ داریوں میں شامل نہ بھی ہو تب بھی میں اپنے ساتھی ملازمین کو ماحول کی حفاظت کے لئے مشاورت فراہم کرتا ہوں۔	5	4	3	2	1
میں ماحول دوستی کے حوالے سے اپنے ادارے کی کارکردگی بہتر بنانے کے لئے نئے طور طریقوں پر مبنی تجاویز دیتا ہوں۔	5	4	3	2	1
میں اپنے ادارے کے ماحول دوستی کے حوالے سے اٹھائے گئے اقدامات سے آگاہ رہتا ہوں۔	5	4	3	2	1
میں ایک با معنی پیشے سے وابستہ ہوں۔	5	4	3	2	1

Figure A1. Cont.

5	4	3	2	1	میں اپنے کام کو اپنی ذاتی نشوونما کا باعث سمجھتا ہوں۔
5	4	3	2	1	میرا کام دنیا میں کسی تبدیلی کا باعث نہیں بنتا۔
5	4	3	2	1	مجھے اس بات کا ادراک ہے کہ میرا کام کیسے میری زندگی کے با معنی ہونے کا باعث بنتا ہے۔
5	4	3	2	1	مجھے اس بات کا اچھی طرح سے ادراک ہے جو کہ میرے کام کو با معنی بناتی ہے۔
5	4	3	2	1	میرا کام مجھے اپنی ذات کو بہتر طریقے سے سمجھنے میں مدد دیتا ہے۔
5	4	3	2	1	میں نے ایسا پیشہ دریافت کر لیا ہے جس کا مقصد کافی اطمینان بخش ہے۔
5	4	3	2	1	میرا کام مجھے اپنے اردگرد دنیا کو سمجھنے میں مدد فراہم کرتا ہے۔
5	4	3	2	1	پیشہ و راند لحاظ سے میں جو کام کرتا ہوں وہ ایک بڑے مقصد کو تقویت دیتا ہے۔

Figure A1. Urdu Questionnaire.

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