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# Explanatory or Dispositional Optimism: Which Trait Predicts Eco-Friendly Tourist Behavior?

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**Abstract:** Recently, researchers have been drawn to the literature surrounding positive psychology. The role of explanatory and dispositional optimism in eco-friendly tourism has been largely ignored by researchers, even though positive psychology, or optimism, has been studied in the sustainability domain. The purpose of this study is to determine which trait predicts eco-friendly tourist behavior. In the study, the data were collected online using Amazon Mechanical Turk from 400 respondents, and the model was assessed using partial least squares structural equation modeling. Findings revealed that in terms of predicting eco-friendly tourism behavior, dispositional optimism outperformed explanatory optimism. Furthermore, this study found that environmental concern positively moderates the association between optimism (dispositional and explanatory) and eco-friendly tourism behavior. This study has wide-ranging implications for tourism managers, practitioners, and academics.

**Keywords:** dispositional optimism; explanatory optimism; eco-friendly tourist behavior; positive psychology; green consumer behavior

## 1. Introduction

According to the United Nations World Tourism Organization [1], approximately one billion tourists travel abroad each year, contributing 10% and 6% to global GDP and total exports, respectively. Despite being a leader in the service sector, tourism generates a large amount of greenhouse gases [2]. As a result, the tourism industry is among the most unsustainably affected industries. Hence, studying eco-friendly behavior within the ambit of tourism is critical as this industry exhibits negative spillover effect over the environment, the society, and the economy.

Environmental degradation has resulted in the development of the "sustainable development concept" that encourages individuals to practice eco-friendly behavior in order to conserve the environment [3]. A large number of visitors expressed their willingness to behave ethically when they are at home or on vacation [4,5]. Paradoxically, a reduction in ethical behavior among tourists at the destination has been documented in the extant literature [6–8]. It is possible to attribute the lack of consensus in the literature to individual and situational factors that can influence individuals' ethical behavior, for instance—personal values, attitude, perceived behavioral control, social norms, personality traits, knowledge, moral obligations, and infrastructure availability [9–14]. In fact, studies in the area of tourism consumption accentuated environmental behavior, specifically performed by eco-tourists [15].

In an attempt to identify more stable factors, previous researchers have linked life satisfaction or subjective cognition to personality traits [7,15]. While, there has been an escalating interest in positive aspects of human behavior and personality [15,16], optimism has become the focus of a lot of research and theory in recent years [17,18]. Despite this, little is known about the influence of optimism on an individual's behavior in social

situations [19]. The two main scientific conceptions of optimism are dispositional optimism and explanatory optimism [19–22]. Sadiq [19] argued that even though there is a lack of empirical research to support whether dispositional optimism and explanatory optimism are conceptually related or not, previous researchers [2,5] agree that the concurrent effect of dispositional and explanatory optimism on individual's attitude and behavior is not well-studied empirically. As we know, people with different personality traits behave differently toward the safety of the environment [16–18], and scholars such as Kaida and Kaida [18] and Sadiq [19] have recommended examining two types of optimism, namely dispositional and explanatory optimism in relation to ethical behavior. Hence, this research aims to determine which type of optimism best predicts tourists' eco-friendly behavior.

Additionally, prior scholars such as Amatulli, Angelis, and Stoppani [23] and Kim, Kim, Han, and Holland [24] suggested that environmental concern is an important factor in driving tourists' eco-friendly decision-making process. Meanwhile scholars such as Verma, Chandra, and Kumar [25] have emphasized the importance of examining the role of environmental concerns in tourism. We further noted that the use of environmental concern as a moderator between personality traits and tourists' actual behavior may lend a newer dimension and essentially reduce the much debated attitude–behavior gap, which surprisingly has not yet been considered in tourism domain. Therefore, this study responds to the call by examining the role of environmental concern as a moderator between personality traits and actual behavior.

In terms of environmental consciousness, Indians are among the most conscientious [20] and environment concerned [22]. Additionally, the hospitality and tourism industry contributed approximately 6.5% to the total GDP of India in 2019 [21]; thus, it stimulates the growth of its economy. In this backdrop, this research contributes to the developing nation by focusing on India and Indian tourists.

Based on this, the current study proposes two research questions: (RQ1) Do personality traits (dispositional and explanatory optimism) influence tourists to display eco-friendly behavior? (RQ2) Does environmental concern actually moderates tourists' personality traits and eco-friendly behavior link? To address these research questions, this study aims to fill the gap in the literature in the following ways: First, based on the primary data, this study investigates the relationship between dispositional optimism, explanatory optimism, and eco-friendly tourist behavior. Second, to assess the relationship between tourists' personality traits and their eco-friendly behavior, we examined the moderating effect of environmental concern. Therefore, the primary objective of this research is to examine the influence of dispositional and explanatory optimism on tourists' eco-friendly behavior and also assess the moderating role of environmental concern on the link tourists' personality traits-eco-friendly behavior in the context of India.

Following the introduction section, the rest of the article is structured as follows: Section 2 discusses recent literature around optimism and its two school of thoughts, research hypotheses and conceptualization of the research model. Section 3 presents the development of the survey instrument, the determination of sample size, and data collection. Section 4 covers preliminary analysis, hypotheses testing and results. Section 5 presents discussions and implications, followed by limitations and future research directions.

## 2. Materials

### 2.1. Two Schools of Thought of Optimism

Researchers and social scientists have advanced two different schools of thought. The first school of thought proposes optimism as an explanatory concept [26]; the second proposes "generalized outcome expectations" [27].

This first school of thought is founded on the learned helplessness theory (LHT), which has its roots in Maier's and Seligman's seminal works [28]. According to this theory, the uncontrollability of events leads to a low motivation level, a low level of cognition, and a low level of emotion. Therefore, if an individual fails to control the event, he/she loses motivation, loses the ability to judge the outcome, and becomes emotionally disturbed.

Seligman, Abramson, Semmel, and Von Baeyer [29] used a reformulated LHT to define the attribution on the basis of past positive and negative events. Furthermore, on the basis of reformulated LHT, Peterson and Seligman [26] showed that future expectancies can be derived from a past bad event explanation. The above cited studies of Peterson and Seligman [26] and Seligman et al. [29] indicate that an individual's future expectancies of the outcome, i.e., optimism, depend heavily upon past negative experiences.

Peterson and Seligman [26] used the causal explanation method to determine future expectancies based on the given attributions—"internal vs. external, stable vs. unstable, and global vs. specific" (p. 348). In other words, an individual with an optimistic explanatory style uses unstable (low stability), external (low internality), and specific (low globality) factors to explain mishappenings, while on the other hand, an individual with a pessimistic explanatory style uses stable (low instability), global (low specificity), and internal (low externality) factors to explain past failures.

Founded in the seminal work of Carver and Scheier [30], the second school of thought is based on the control theory. This theory posits that individuals have a tendency to reduce "the comparison value that arises, due to the difference in his/her perception and reference value, which in turn, leads to the behavior" ([22], p. 2). According to the control theory [27], consumer actions influence the environment, resulting in a certain perception. After they develop perceptions, consumers close the loops, resulting in the so-called "negative feedback loop" ([31], p. 946).

According to the second school, optimism is a general outcome expectation. For instance, in Scheier and Carver ([27], p. 220), optimism was considered as "outcome expectancies based on the closed loop negative feedback system". As a result, self-focused consumers determine the existing conditions and predict the future. Following this, consumers tend to compare both existing and future conditions, which can result in discrepancies. When consumers attempt to reduce "these discrepancies", they may succeed or fail to do so. As a result, consumers who successfully reduce their discrepancies are referred to as optimistic, whereas those who fail to reduce their discrepancies are referred to as pessimistic.

Although both approaches, explanatory and generalized expectation, show similar results, they are not identical. There is a difference between how these two distinct schools of thought view future expectations. When we use the explanatory style, we apply the criteria of external, unstable, and specificity to explain what bad events happened in the past, whereas generalized outcome expectancy emphasizes what will happen in the future. This is in line with the observations of Tomakowsky, Lumely, Markowitz, and Frank [32] and Zhang et al. [33].

### 2.2. Eco-Friendly Tourist Behavior

Based on the literature, tourists' eco-friendly behavior is primarily determined by their concern for others and the environment. For example, Sadiq et al. [8] posited that tourists' eco-friendly behavior could be reflected through pro-environmental behavior, i.e., preferring eco-friendly hotels to "conventional ones". Gossling et al. [34] found that tourists in Tanzania are unaware of the impacts of their actions on the natural environment. In fact, higher humidity, more rain, and storms negatively influenced their travel decisions. In a similar study, Shamdub and Lebel [35] found that eco-friendly behavior of tourists in Thailand usually depends on a number of factors, such as the demographic background of the tourist, income level, traveling individually or in a group, duration of their stay, etc. Similar observations were also made by Eslaminosratabadi [36] where researchers observed that the level of intention to pay more for green hotels differs significantly across tourists' educational level, monthly income, and age.

### 2.3. Hypotheses and Model Development

2.3.1. Optimism and Eco-Friendly Tourist Behavior

Eco-friendly tourist behavior is referred to as "an individual's aim to minimize his/her detrimental impacts on the natural environment and otherwise contribute to environmental protection" ([37], p. 111). Existing literature found dispositional optimism to be a motivator to engage in pro-environmental behavior (see [20,21]). Dispositional optimism encourages individuals to take risk [38,39] and is also considered as one of the best coping strategies [40]. Pro-environmental behavior requires financial risk [41]; therefore-, we may interpret that tourist high on dispositional optimism is more likely to display eco-friendly behavior.

Likewise, explanatory optimism predicts pro-environmental behavior based on individuals' past experiences. Although we could not find a single study focusing on examining the role of explanatory optimism in motivating consumers to adopt pro-environmental behavior/pro-social behavior/eco-friendly behavior, it may be interpreted from the study of Tomakowsky et al. [32] and Zhang et al. [33] that explanatory optimism and dispositional optimism exhibit almost similar results. Thus, we hypothesized the following.

**Hypothesis 1 (H1).** *Dispositional optimism positively influences eco-friendly tourist behavior.*

**Hypothesis 2 (H2).** *Explanatory style optimism positively influences eco-friendly tourist behavior.*

2.3.2. Moderating Effect of Environmental Concern

Environmental concern refers to "the degree to which people are aware of problems regarding the environment and support efforts to solve them or indicate the willingness to contribute personally to their solution" ([42], p. 482). Environmentalists and scholars suggest gauging environmental concern as an important step toward understanding environmental activism in the nation [21]. The literature indicates that environmental concern is a significant driver of eco-friendly tourist behavior [8], which possibly impact tourists' decision-making choices [43]. There is, therefore, a high likelihood that tourists with a high concern for the environment will exhibit eco-friendly tourist behavior [23]. According to this study, tourists with optimistic views have a high level of environmental concern, which, in turn, motivates them to exhibit environmentally friendly behavior such as avoiding throwing garbage into the sea. Therefore, it is hypothesized that environmental concern might moderate the association between optimism (dispositional and explanatory) and eco-friendly tourist behavior.

**Hypothesis 3a,b (H3a,b).** *Environmental concern significantly moderates the relationship of eco-friendly tourist behavior with (a) dispositional optimism and (b) explanatory optimism.*

### 2.4. Control Variable

According to the extant literature on environmentally friendly behavior [43,44], this study considers personal factors such as age, gender, and income as control variables to avoid these factors interfering with the prediction of eco-friendly behaviors. Cheung and To [45] suggested that age and gender significantly influence consumers' choice of environmentally friendly behavior. Similarly, Connell [46] highlighted that the income of consumers significantly influences them in selecting products, such as those belonging to the high income group being more likely to engage in eco-friendly behavior. Hence, following Sadiq et al. [44], our study considers age, gender, and household income as control variables in order to avoid their interference in predicting eco-friendly behavior. The above discussion results in the conceptualization of a research model (see Figure 1).
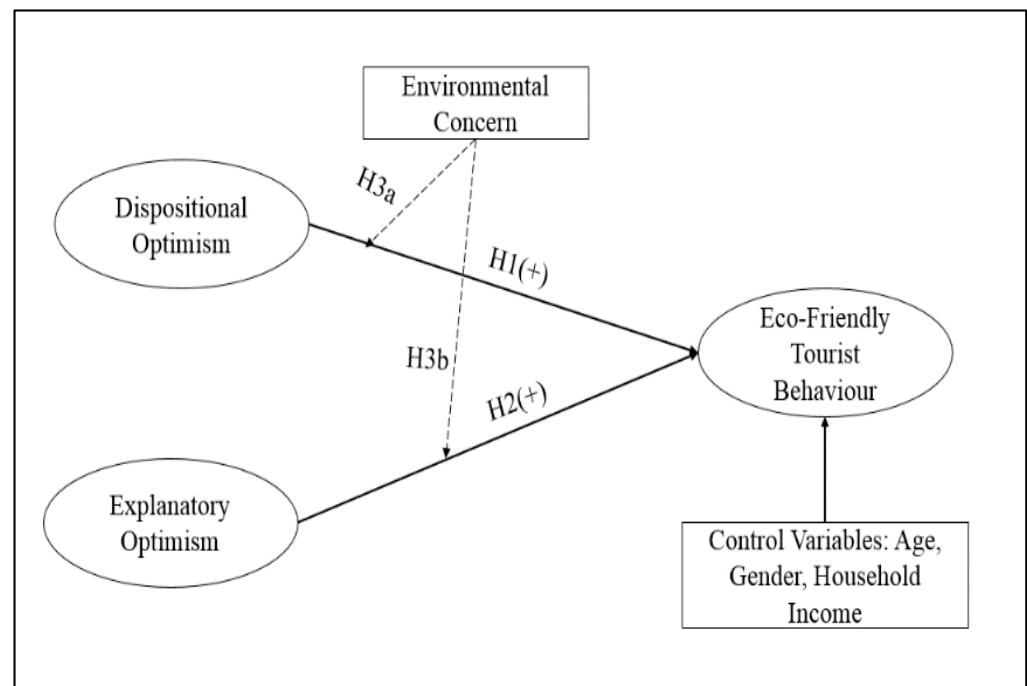
**Figure 1.** Conceptual model.

### 3. Methods

The present study aims at examining which form of optimism is a better predictor of eco-friendly behavior amongst tourists. The questionnaire consists of 26 items adapted from a number of sources. Dispositional optimism was measured by 6 items drawn from Revised Life Orientation Test scale [47]. The sample items are as follows: "In uncertain time, I usually expect the best" and "I'm always optimistic about my future", among others (see Table 1). Similarly, explanatory style optimism was measured by an 8-item scale adopted from the multidimensional-multiattributional causality (MMC) scale [48]. Following Yuan and Wang [49], we chose achievement and affiliation from the MMC scale, as both are closely linked to daily life activities [50]. The sample items are as follows: "Often chance events can play a large part in causing rifts between friends", "Getting along with people is a skill", among others. Eco-friendly tourist behavior was measured by 8-item of tourist behavior scale of Kvasova [37], and the sample items are as follows: "During my visit to foreign countries as a tourist, I talk with friends about problems related to the environment" and "When I visit foreign countries as a tourist, I avoid buying goods with unnecessary packaging material", among others. Lastly, a 4-item scale was adapted from Sadiq et al. [21] to measure environmental concern. All adapted items were based on a 5-point Likert Scale where 1 and 5 were anchored as "strongly disagree" and "strongly agree", respectively.

**Table 1.** Measurement items.

| Variable | Item Code | Item |
| --- | --- | --- |
| Dispositional Optimism | DO1 | In uncertain time, I usually expect the best |
| | DO2 | I'm always optimistic about my future |
| | DO3 | Overall, I expect more good things happen to me than bad |
| | DO4 | If something can go wrong for me, it will |
| | DO5 | I hardly ever expect things to go my way |
| | DO6 | I rarely count on good things happening to me |

**Table 1.** *Cont.*

| Variable | Item Code | Item |
|---|---|---|
| Environmental Concern | EC1 | The balance of nature is very delicate and can be easily upset |
| | EC2 | Human beings are severely abusing the environment |
| | EC3 | Humans must maintain the balance with nature in order to survive |
| | EC4 | Human interferences with nature often produce disastrous consequences |
| Eco-friendly tourist behavior | EFTB1 | During my visit to foreign countries as a tourist, I talk with friends about problems related to the environment |
| | EFTB2 | During my visit to foreign countries as a tourist, I buy/read magazines and listen/watch news which focus on environmental issues |
| | EFTB3 | When I visit foreign countries as a tourist, I avoid buying goods with unnecessary packaging material |
| | EFTB4 | During my visit to foreign countries as a tourist, I buy environmentally friendly products, whenever possible |
| | EFTB5 | I reduce and recycle waste, whenever possible, during my visits to foreign countries as a tourist |
| | EFTB6 | As a tourist, I always like to visit environmentally friendly countries |
| | EFTB7 | When I visit foreign countries as a tourist, I try to minimize my consumption of water and energy |
| | EFTB8 | When I visit foreign countries as a tourist, I choose means of transportation with the least ecological footprint |
| Explanatory Optimism | EO1 | I find that the absence of friendships is often a matter of not being lucky enough to meet the right people |
| | EO2 | It seems to me that getting along with people is a skill |
| | EO3 | I feel that people who are often lonely are lacking in social competence |
| | EO4 | In my experience, there is a direct connection between the absence of friendship and being socially inept |
| | EO5 | I find that the absence of friendships is often a matter of not being lucky enough to meet the right people |
| | EO6 | Difficulties with my friends often start with chance remarks |
| | EO7 | Poor grades inform me that I haven't worked hard enough |
| | EO8 | Sometimes my success on exams depends on some luck |

To run multivariate analysis techniques such as structural equation modeling, researchers require a sample size of 10 to 15 times of the items considered under the survey to measure relationships amongst the variables [38,51]. Since the current study has 26 items in the questionnaire, therefore, the minimum responses required would be 26*15 = 390. In addition, earlier studies conducted in India by researchers such as Khare [12], Khan, and Kirmani [52] and Sadiq and Adil [53] covered 200–500 participants. Therefore, we approached 400 Indian respondents (who have been on vacation in the last three years) through Amazon Mechanical Turk (MTurk). The survey was administered on 8 August 2021 and ended on 12 August 2021. Of these 400 respondents, 246 (approximately 61.5%) were male and 154 (approximately 38.5%) were female (Table 2). The average age (31.6 in years) and average household income (25,001–30,000 INR) of respondents were noted. In spite of the fact that MTurk is becoming increasingly popular among social scientists [54],

it is not always reliable and, at times, the quality of the data is also contentious [8,55]. However, Bentley, Daskalova, and White [56] noted that MTurk helps generate accurate data relatively faster and at a lower cost. Hence, it is evident that researchers can rely on this platform. Furthermore, as a means of overcoming the challenges that MTurk offers, the authors followed the suggestions of Sadiq et al. [8,20] for setting the inclusion criteria. To increase the accuracy rate, we set the following inclusion criteria for the current research. The respondents who were eligible to participate in the survey met the following criteria: (a) completed more than 100 surveys in the past; (b) possess an acceptance rate of 98% or more.

**Table 2.** Demographic details.

| Factor | | Numbers (Frequency) |
|---|---|---|
| Gender | Male | 246 (61.5%) |
| | Female | 154 (38.5%) |
| Occupation | Student | 83 (20.7%) |
| | Service worker | 271 (67.8%) |
| | Business owner | 37 (9.2%) |
| | Retired | 9 (2.3%) |
| Education | Undergraduate | 318 (79.5%) |
| | Post-graduate | 63 (15.75%) |
| | Ph.D. | 19 (4.75%) |

## 4. Results

### 4.1. Descriptive and Common Method Bias Testing

Following the suggestions of Khan and Adil [57], this research first tests descriptive analysis followed by multivariate analysis. To check for missing values, this study conducted a frequency test. The result indicates that no missing values are in the data. Furthermore, following Stevens [58], Cook's distance was used to test the outlier. The result indicates that all values were less than 1, which means that there is no outlier. Another reason for data being free from missing values and outliers was the result of sincere checks and monitoring by the researchers during the data collection phase. In addition, in order to test the association between the employed variables—dispositional optimism, explanatory optimism, and eco-friendly tourist behavior (Table 3)—we conducted Pearson's correlation analysis for weak (r = 0.145 **) association between dispositional optimism and explanatory optimism, indicating that both optimisms are similar yet largely different [32]. Previous studies [59,60] also found a weak correlation between the two.

**Table 3.** Results of descriptive and correlation.

| | Mean | SD [1] | DO [2] | EO [3] | EC [4] | EFTB [5] |
|---|---|---|---|---|---|---|
| DO | 4.10 | 0.563 | 1 | | | |
| EO | 3.65 | 0.779 | 0.145 ** | 1 | | |
| EC | 4.18 | 0.704 | 0.438 ** | 0.294 ** | 1 | |
| EFTB | 4.09 | 0.570 | 0.522 ** | 0.187 ** | 0.237 ** | 1 |

Notes: [1] = standard deviation; [2] = dispositional optimism; [3] = explanatory optimism; [4] = environmental concern; [5] = eco-friendly tourist behavior; ** $p < 0.01$.

Common method bias (CMB) is a major issue in social science research [19]. To assure that our data are free from CMB, we followed two steps: (1) Negatively worded questions were asked to ensure that respondents did not divert from the survey [43]. (2) Harman's single factor test was conducted using exploratory factor analysis (SPSS). The obtained value (27.3%) is less than the threshold value (50%) [61]; therefore, CMB is absent in the collected data.

### 4.2. Hypotheses Testing

To test the proposed hypotheses, this study used partial least squares structural equation modelling in ADANCO 2.0. Following Dhir, Sadiq, Talwar, Sakashita, and Kaur [62], we adopted a two-step research model test.

First, we test the fitness, reliability, and validity of the research model. Henseler [63] suggests that criteria such as "unweighted least squares discrepancy (dULS)"; "geodesic discrepancy (dG)"; and "standardized root mean square residual (SRMR)" (pp. 22, 23) are required to examine the research model's fitness. The values of dULS, dG, and SRMR should be less than the values at HI99 [63]. The result (see Table 4) indicates that the values of dULS (0.674), dG (0.371), and SRMR (0.048) are less than threshold values. Therefore, the research model exhibits a good model fit.

**Table 4.** Model fit.

|  | SRMR | dULS | dG |
|---|---|---|---|
| Obtained values | 0.048 | 0.674 | 0.371 |
| HI95 | 0.059 | 0.718 | 0.417 |
| HI99 | 0.067 | 0.983 | 0.596 |

Furthermore, we test the reliability and validity of the research model by assessing McDonald's Omega ($\omega$), average variance extracted (AVE), Joreskog's rho ($\rho$), factor loadings ($\lambda$) (see Table 3), and Heterotrait–Monotrait Ratio of Correlation (HTMT) (see Table 4). The results indicate that factor loadings of DO3 (0.48), DO5 (0.39), EO2 (0.57), and EO6 (0.49) are less than the recommended values, i.e., 0.60 [38]. Therefore, these five items were dropped from further analysis. From Table 5, this study interprets the values of $\rho$ that are above the recommended value, i.e., 0.7; therefore, the model's reliability is established. Furthermore, the value of each variable's AVE is greater than the recommended value, i.e., 0.50; therefore, convergent validity is established. Table 6 indicates that the values of each variable are less than the threshold, i.e., 0.85 [38]; therefore, discriminant validity is established.

**Table 5.** Reliability and validity of the model.

| Variable | Item Code | $\lambda$ | AVE | $\rho$ | $\omega$ |
|---|---|---|---|---|---|
| Dispositional Optimism | DO1 | 0.72 | 0.61 | 0.86 | 0.85 |
| | DO2 | 0.77 | | | |
| | DO4 | 0.84 | | | |
| | DO6 | 0.79 | | | |
| Explanatory Optimism | EO1 | 0.75 | 0.57 | 0.96 | 0.82 |
| | EO3 | 0.72 | | | |
| | EO4 | 0.81 | | | |
| | EO5 | 0.77 | | | |
| | EO7 | 0.78 | | | |
| | EO8 | 0.71 | | | |
| Eco-Friendly Tourist Behavior | EFTB1 | 0.77 | 0.66 | 0.93 | 0.87 |
| | EFTB2 | 0.77 | | | |
| | EFTB3 | 0.89 | | | |
| | EFTB4 | 0.85 | | | |
| | EFTB5 | 0.77 | | | |
| | EFTB6 | 0.83 | | | |
| | EFTB7 | 0.85 | | | |
| | EFTB8 | 0.74 | | | |

Key: $\lambda$ = factor loadings; AVE = average variance extracted; $\rho$ = Joreskog's rho; $\omega$ = McDonald's omega.

**Table 6.** HTMT analysis.

| Construct | DO [1] | EO [2] | EFTB [3] |
|:---:|:---:|:---:|:---:|
| DO | 1 | | |
| EO | 0.15 | 1 | |
| EFTB | 0.58 | 0.18 | 1 |

Key: [1] = dispositional optimism; [2] = explanatory optimism; [3] = eco-friendly tourist behavior.

In addition, to test the significance of the proposed hypotheses, we examine the *p* value along with the beta value (see Table 7). It was found that dispositional optimism was positively associated with eco-friendly tourist behavior ($\beta = 0.622$, $p < 0.001$), therefore supporting hypothesis H1. Similarly, the influence of explanatory optimism on eco-friendly tourist behavior was found to be significant ($\beta = 0.114$, $p < 0.05$). Hence, H2 was also supported. Furthermore, the effect of control variables (Age: $\beta = 0.04$, $p > 0.05$; Gender: $\beta = 0.07$, $p > 0.05$; Household income: $\beta = 0.01$, $p > 0.05$) on eco-friendly tourist behavior was insignificant. Lastly, the variance explained in eco-friendly tourist behavior was also found to be 53.7%.

**Table 7.** Hypotheses testing.

| Relationship | $\beta$ | $f^2$ |
|:---:|:---:|:---:|
| (H1) DO → Eco-Friendly Tourist Behavior | 0.622 *** | 0.372 |
| (H2) EO → Eco-Friendly Tourist Behavior | 0.19 ** | 0.127 |

Key: ** = $p < 0.05$, *** = $p < 0.001$.

The Cohen $f^2$ value was also calculated to determine the strength of the relationship between dependent and independent variables. The association between dispositional optimism and eco-friendly tourist behavior was strong, as the $f^2$ (0.372) value was above the suggested value (0.35). Similarly, the relationship between explanatory optimism and eco-friendly tourist behavior $f^2$ (0.127) was weak.

### 4.3. Moderation Analysis

To test the moderation effect of environmental concern, this study adopted Model 1 of Process Macro. The results in Table 8 indicate that environmental concern significantly moderates the relationship between dispositional optimism and eco-friendly tourist behavior (see Figure 2). Similarly, it also explains that when environmental concerns are high, explanatory optimism is translated into eco-friendly tourist behavior (see Figure 3). Therefore, H3a and H3b are supported.

**Table 8.** Moderation analysis.

| | | Environmental Concern | | | | | |
|:---:|:---:|:---:|:---:|:---:|:---:|:---:|:---:|
| | | $\beta$ | T | P | LLCI | ULCI | Moderation? |
| H3a | DO → EFTB | 0.15 | 3.84 | 0.002 | 0.079 | 0.186 | Yes |
| H3b | EO → EFTB | 0.11 | 2.97 | 0.038 | 0.041 | 0.135 | Yes |

Key: DO = dispositional optimism; EO = explanatory optimism; EFTB = eco-friendly tourist behavior; LLCI = lower level of confidence interval; ULCI = upper level of confidence interval.
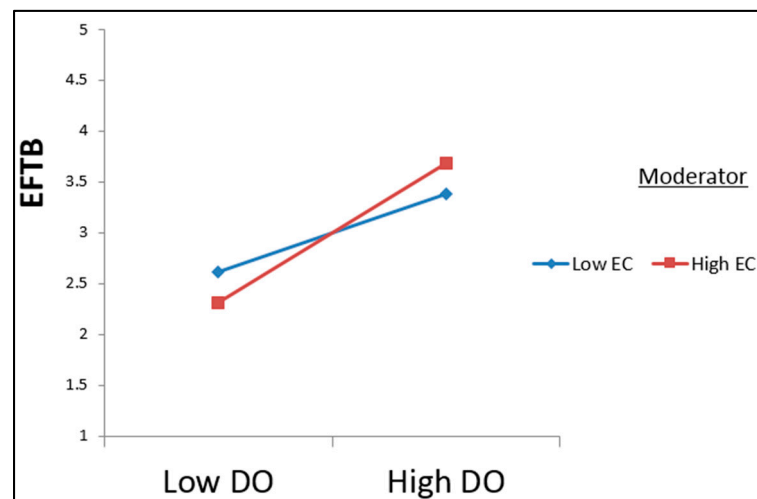
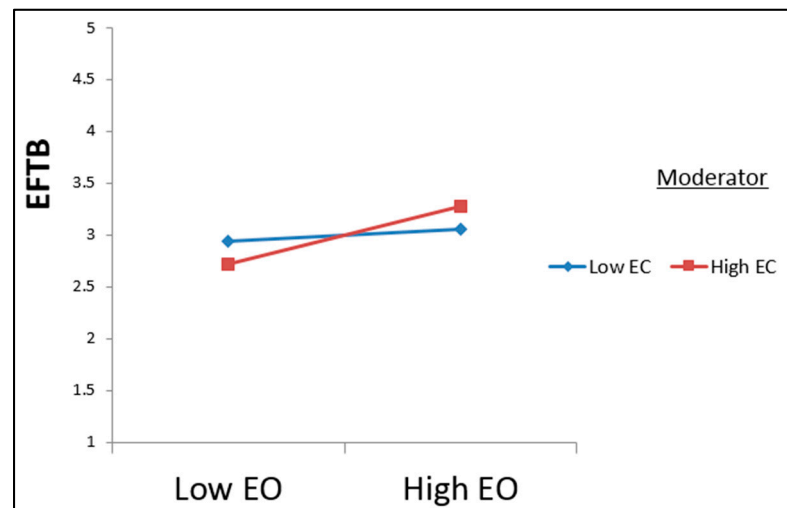**Figure 2.** Interaction effect of EC on the link DO and EFTB.



**Figure 3.** Interaction effect of EC on the link EO and EFTB.

## 5. Discussion

The purpose of our study was to fulfill two research objectives: (a) to explain how tourists make eco-friendly decisions based on dispositional and explanatory optimism; (b) to produce a research model that explains how environmental concerns moderate links between the attributional style of optimism and eco-friendly tourist behavior. Hence, in this section, we discuss the findings of the four tested hypotheses (H1, H2, H3a, and H3b).

The current study aimed to determine which form of optimism is a better predictor of eco-friendly tourist behavior. Since there is a paucity of literature on the subject, this study may provide a guide towards determining which optimism is a better predictor of eco-friendly tourist behavior. Based on the literature, we used dispositional and explanatory optimism as predictors of eco-friendly tourist behavior. Using primary data collected from 400 respondents in India, first, we tested the influence of dispositional optimism on eco-friendly tourist behavior (H1). The study's result illustrates that dispositional optimism significantly influences eco-friendly tourist behavior, implying that it acts as an important guiding force for tourists. Hence, this is in line with the findings of Kaida and Kaida [18] and Sadiq [19], wherein the researchers observed a strong influence of dispositional optimism on pro-environmental behavior. The findings show that tourists who are high on dispositional optimism are more likely to exhibit eco-friendly behavior due to their improved coping skills [40]. Under challenging/risky conditions [20,21], they are less likely to be stressed, and they tend to enjoy life more [64]. One of the plausible interpretations of the result could

be that dispositional optimist uses adaptive coping strategies, e.g., for acknowledging and trying to change uncontrollable situations, facing challenges directly, persevering during adversity, and attempting to overcome obstacles. Furthermore, tourists with an optimistic tendency tend to be more pro-environmental because they can focus on a positive future [20]. For instance, exhibiting eco-friendly behavior is considered as a costly affair, which at times discourage tourists from participating in pro-environment activities. As a result, tourists needed coping strategies to deal with the additional financial burden. In the same vein, Sadiq et al. [8] suggests that booking eco-friendly hotels may involve financial burden because of greenwashing practices, which affect consumer's trust and future behavior. Furthermore, drawing support from Sadiq [20], it is likely that H1 findings are due to the fact that consumer dispositional optimism is generally regarded as one of the best coping strategies that enables consumers to develop risk-taking capabilities and pro-social behaviors.

In the same manner, H2 examined the influence of explanatory optimism on eco-friendly tourist behavior. Findings indicate that explanatory optimism is a predictor of eco-friendly behavior; however, it has a weak association. The present study is the first to examine the influence of explanatory optimism in tourism contexts. As such, we assume that respondents might have had negative experiences in their past, which are affecting their future course of actions. For instance, visitors experiencing bad service at green hotel property (negative experience) would show resistance towards pro-environment behavior. Accordingly, Sadiq [19] argued that people who tend to be high on explanatory optimism do not always engage in pro-environmental behavior. Similar observations were also made by Sandra et al. [65], where they found that "not all tourists show pro-environmental behavior". Therefore, based on the empirical results in the current study, we can argue that dispositional optimism is a better predictor of eco-friendly behavior of tourists than explanatory optimism. This concurs with the findings of Scheier and Carver [27] where they found that dispositional optimism is a better predictor of behavior as it does not carry the past negative experiences of an individual and influences his/her decisions.

In order to examine the moderating role of environmental concern, this study tested two hypotheses (H3a,b). First, this research supports H3a, which states that influences of dispositional optimism on eco-friendly tourist behavior would increase in the presence of high environmental concern. This finding is in line with Sadiq et al. [22], wherein authors discuss the importance of environmental concerns in motivating consumers to adopt eco-friendly behavior. As a possible explanation for this finding, optimistic visitors tend to focus on positive things such as improving the quality of the environment, which can be mitigated through the efforts of individuals as well as society, but sometimes there is hesitation, which can be addressed by introducing the concept of environmental concern to further motivate them to exhibit eco-friendly behavior. Furthermore, this study also supports H3b, which states that explanatory optimism has a significant influence on eco-friendly tourism when tourist's environmental concern is high. To the best of our knowledge, no study has been grounded on explanatory optimism in eco-friendly consumer behavior; hence, this study shows that tourists have good or bad experiences with respect to saving the environment, such as booking eco-friendly hotels, which is likely to influence their future eco-friendly behavior. As a result, tourists who are concerned with the environment are more likely to engage in eco-friendly behavior at the destination.

## 5.1. Implications

By conducting this study, we made three key contributions to the existing body of knowledge. Firstly, we proposed better predictors (explanatory or dispositional optimism) of eco-friendly tourist behavior. There are only a few studies in the literature that use both types of optimism (see [32,33,59,60]), but no study has employed both types of optimism in the literature related to pro-environmental behavior. Secondly, in response to the calls of previous scholars such as Kaida and Kaida [18] and Sadiq [19] to examine the complex relationship between dispositional optimism, explanatory optimism, and eco-friendly

behavior, this study is a first step towards this examination. Third, it is also one of the first studies to examine environmental concern as a moderator between personality traits and actual behavior.

This study's findings will assist marketers'/hotel managers' understanding of how explanatory and dispositional optimism influence and shape tourists' eco-friendly behaviors. Furthermore, hotel management can draft marketing strategies by considering two different types of optimisms as both are very important psychological factors. Hotel management can use promotional strategies that have a psychological effect on tourist's mind, for instance, booking an eco-friendly hotel would have a positive effect on climate. By doing so, hotel management can increase its footfall and also mitigate negative impacts on the climate. Furthermore, the inclusion of environmental concern illustrates how different segments of optimistic tourists behave in the given context. Study findings indicate that enhancing the concern for the environment among optimistic travellers results in the adoption of eco-friendly behaviors at the destination. Therefore, destination management can design marketing strategies that will show that by visiting eco-friendly destination, visitors will help the environment. Additionally, travel planners, practitioners, and hotel managers should be cautious when promoting their properties as eco-friendly. People with explanatory optimism are more likely to carry negative experiences from the past, which in turn largely determines their future environmental behavior. To promote eco-friendly tourist behavior through explanatory and dispositional optimism, management should provide accurate information to tourists and not use unethical practices. This will foster trust and confidence among tourists, allowing them to engage in eco-friendly behavior.

### 5.2. Limitations and Future Research Directions

Similar to any other studies, this one has some limitations. First of all, since the study was conducted in a developing nation, its findings cannot be generalized to developed nations due to cultural differences [19]; therefore, researchers are encouraged to test the current research model in developed nation contexts in future. Secondly, self-reported data can lead to the common method bias [61]; hence, future researchers should be cautious about issues related to the common method bias. Thirdly, the study has not accounted for factors such as socioeconomic background, religion, region, mode of transportation, duration of stay at a destination, etc., into the model that might affect tourists' optimism and pessimism. Fourth, in the present study, demographic variables were not considered as moderating factors on the link between optimism(s) and eco-friendly tourist behavior. Researchers should, therefore, extend the current model by including demographic variables in order to gain a better understanding of tourists' pro-environmental behavior.

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