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# **Is there a bright side of COVID-19? The influence of conscientiousness and extended TPB on the tourists' eco-friendly behavior**

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## **ABSTRACT**

The study provides evidence of a positive association between fear of COVID-19 pandemic and tourists' intention towards eco-friendly behavior. The study model was tested by collecting data through a survey targeting hospitality staff in Pakistan. Results reveal that the COVID-19 fear is positively related to the tourists' intention towards eco-friendly behavior through subjective norms and attitude. In addition, tourists' conscientiousness was found as a boundary condition on the association between individuals' fear of COVID-19 and their eco-friendly behavioral intention. The paper concludes by discussing ways that stakeholders from academia and marketplace can utilize the findings in order to convert behavioral intentions into real eco-friendly behavior.

**Keywords:** COVID-19; pandemic; eco-friendly behavior; eco-tourism

## **Background**

People have fought badly with the COVID-19, a global pandemic declared in March 2020 (Heymann & Shindo, 2020). Although COVID-19 has affected almost every phase of life, it is believed that the tourism sector has been affected most by this pandemic (Qiu, Park, Li, & Song, 2020). Research highlights that the individuals' perceived COVID-19 fear is the major factor influencing tourism activities (Luo & Lam, 2020). In contrast to past research emphasizing the negative impacts of COVID-19 fear on individuals' behavior, we contend that COVID-19 fear may have a positive association with tourists' intention to adopt eco-friendly behavior, described as the behavior adopted by individuals in order to take protective actions toward the environment. We argue that due to the very long duration of the crisis and the numerous impacts and implications, people are inclined to adopt an eco-friendly behavior as a way to get protected from the fear of new waves of pandemics.

Based on the extended theory of planned behavior (TPB) (Ajzen, 1991), we theorize a positive association between fear of COVID-19 and the tourists' eco-friendly behavioral intentions. Our model (Figure 1) explains that the subjective norm, attitude, and perceived behavioral control (PBC) are the underlying psychological reasons that link tourists' COVID-19 fear and their eco-friendly behavioral intentions. Our assumption is further supported by Maslow's hierarchy of needs theory (Maslow & Lewis, 1987), which endorses the human need for security as a priority over the secondary social need for leisure. It implies that people prefer their safety over leisure activities (such as tourism), and so, they would be inclined to adopt eco-friendly behavior due to fear of COVID-19.

In addition, we hypothesize that the individuals' conscientiousness moderates the associations between individuals' COVID-19 fear and their intention towards eco-friendly behavior. Previous research has shown that several factors affect the individuals' attitude, subjective norm, and PBC, which subsequently lead to their behavior (Chang et al., 2022). In our study, it is expected that due to COVID-19 fear, people would like their important contacts to also demonstrate eco-friendly behavior. Subsequently, this pressure from important contacts would shape individuals' subjective norm in a way that it would encourage them to behave eco-friendly. We further argue that tourists' perception on whether adopting eco-friendly behavior is convenient or difficult (their PBC), is associated with their adoption of eco-friendly behavior and this perception may be affected by their fear of COVID-19 (Youn, Lee, & Ha-Brookshire, 2021). On the other hand, conscientiousness is an influential personality trait, which is characterized by planning, responsibility, adherence, and self-discipline (McCrae & John, 1992). Research findings during COVID-19 (Carvalho, Pianowski, and Gonçalves, 2020) have revealed a positive association between conscientiousness and individuals' behaviors of hand washing and social distancing. Here, we, hypothesize the moderating role of conscientiousness on the relation between COVID-19 fear and tourists' eco-friendly intentions in a way that this relation is stronger for the individuals with a higher than lower conscientiousness.

### **Method**

Data was collected through an electronic survey distributed through e-mail and social media (including Facebook, Twitter, Whatsapp) targeting people residing in Pakistan and having expressed an interest in traveling. In the first phase of our survey (Time1, T1), we collected data related to COVID-19 fear and peoples' conscientiousness. The survey also included questions related to people's age, marital status, gender, education level, and income level. We received 630 responses in T1. In T2 (one month later), the 630 respondents of T1 were contacted and asked to provide data about their attitude, subjective norm, and PBC. 457 respondents participated in T2, who in turn were contacted in T3 (one month after T2) for providing information related to their eco-friendly behavioral intentions. A total of 340 useable responses were collected in T3.

Fear of COVID-19 was measured through a 7-items scale adopted from Ahorsu et al. (2020). We measured our respondents' attitude, subjective norms, PBC, and ecofriendly intention with a 4-items for each scale adapted from previous studies ( Han, Hsu, and Sheu 2010). Conscientiousness was measured with an 8-items scale adopted from Costa Jr, McCrae, and Dye (1991). All constructs used a 5-points measurement scale ranging from "1 = strongly disagree to 5 = strongly agree".

### **Analyses & Results**

The hypothesized relationships were tested by using SPSS PROCESS macros. Results (Figure1) show that T1fear of COVID-19 is positively associated with T3 eco-friendly intentions. Further, T2attitude and T2subjective norm mediate the relationship of T1fear of COVID-19 and T3 eco-friendly intentions. Results also reports that T2PBC does not mediate the association of T1 fear of COVID-19 and T3 eco-friendly intentions. The significant interaction between T1fear of COVID-19 and T1conscientiousness reflects the moderating role of T1conscientiousness. Indirect effects between T1fear of COVID-19 and T3intention towards eco-friendly behavior through T2attitude and T2subjective norm further show that the mediated relationships are stronger at the higher level (+1SD) of T1conscientiousness.

Based on the extended TPB, the study theorized and tested that COVID-19 fear among tourists is positively related to their favorable attitude, subjective norms, and PBC, which in turn are positively related to their eco-friendly behavioral intentions. The study results confirmed most of the hypothesized relations.

Overall, the findings confirm that tourists' fear of COVID-19 fuels them a favorable attitude and subjective norms towards the adoption of eco-friendly behavior. This is a substantial theoretical contribution in the field of tourism. Contrary to past studies (Luo & Lam, 2020; Zorlu, Tuncer, & Taşkın, 2022) emphasizing the negative impacts of COVID-19 fear on tourism (e.g. unfavorable tourists' intentions to travel, tourists' restrictions in undertaking leisure activities), this study reveals a bright side of the COVID-9 fear. Second, by applying TPB and Maslow's hierarchy of need theory, the study contributes to the literature by explaining why and how fear about COVID-19 relates positively with the tourists' intention towards adopting eco-friendly behavior. Third, we explored the role of conscientiousness as an important human psychological trait in further clarifying the association between the tourists' fear of COVID-19 and their ecofriendly behavior. The findings showed that the association between tourists' fear of COVID-19 and their eco-friendly behavior is stronger for individuals who are high on the conscientiousness scale.

>>> **Figure1**<<<

### **Discussion & Implications**

Our research has several implications for tourism professionals and policy makers. For example, our study confirms that individuals' COVID-19 fear is positively related to their eco-friendly behavioral intention, which in turn shows that COVID-19 has indeed further fueled the rise of the booming eco-friendly tourism market. In other words, because of the COVID-19 pandemic, people are more inclined towards adopting eco-friendly behavior and thus, they are seeking and paying more attention to eco-friendly tourism experiences and organizations. To better satisfy to this post COVID-19 tourism demand, destination managers need to enhance the eco-friendliness of their infrastructure and services. In addition, when designing marketing campaigns, tourism professionals should better embed and communicate the eco-friendliness of their tourism services in order to appeal and attract this market segment.

Indeed, as the COVID-19 has made the tourists more aware and sensitive about eco-friendliness, sustainability management should not be considered anymore as a differentiating factor, but as a minimum standard expected and demanded by travelers. Hence, COVID-19 has strengthened the need of all tourism businesses and destinations to embed and implement environmental practices. Finally, the study emphasizes the need of tourism businesses to adopt

two types of environmental practices: 1) operational practices making the business/destination more environmentally friendly and 2) tourists'-oriented practices aiming to educate and persuade them to adopt eco-friendly behaviors while traveling but also after returning back home. In other words, the study finding showing that the COVID-19 fear has fueled an ecofriendly tourism market supports the idea that tourism nowadays provides an opportunity through which tourism professionals can implement practices that not only make tourism more environmentally friendly, but they also use tourism as a vehicle to make the tourists' behavior more environmentally friendly. Ultimately, by doing this, we can convert tourism as an environmentally responsible social and business practice.

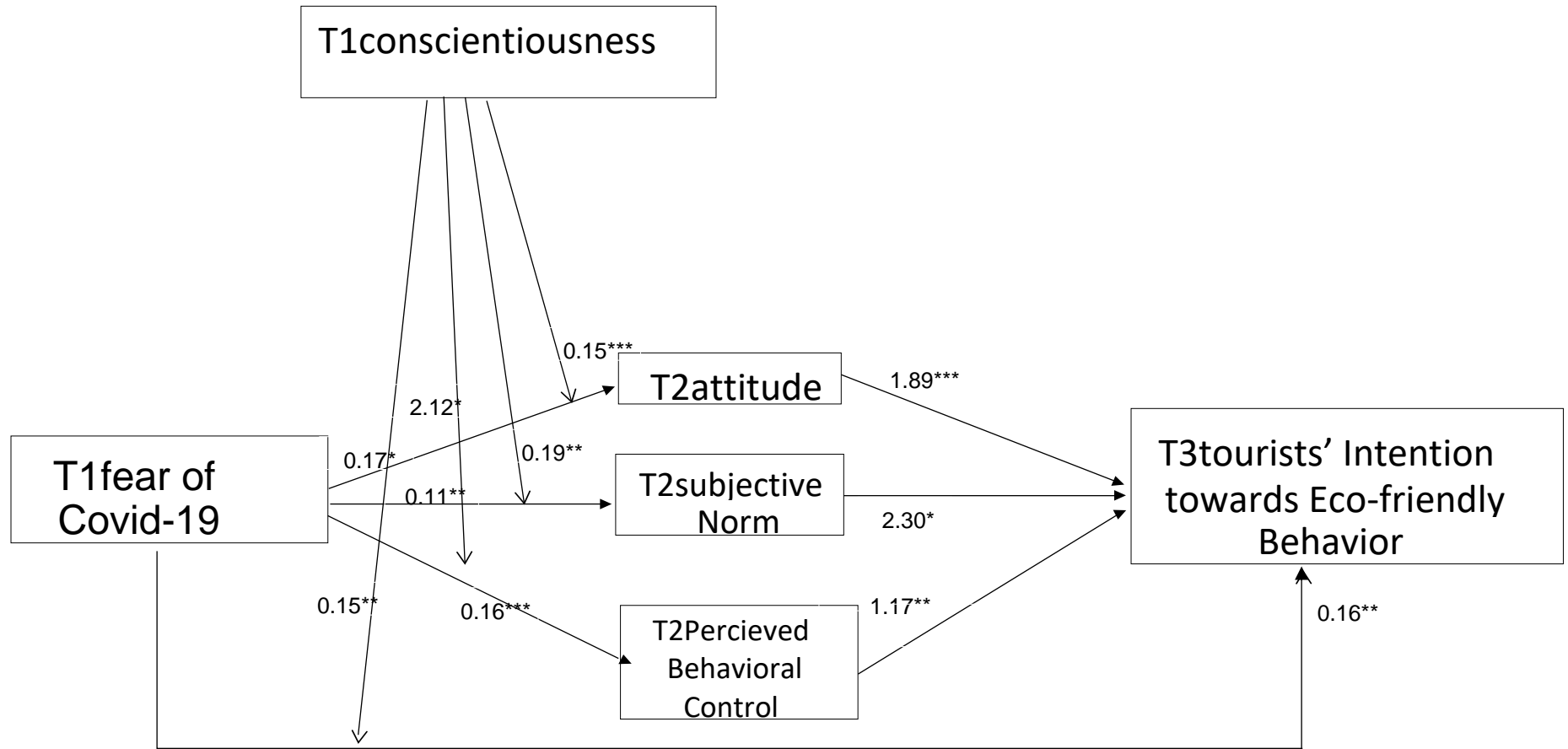
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**Figure1:** The study model and results



**Note:** Mediating effects of attitude (Effect = .06, SE = .01, LLCI = .00; ULCI = .01), subjective norm (Effect = .16, SE = .02, LLCI = .01; ULCI = .36), and PBC (Effect = .07, SE = .02, LLCI = .02; ULCI = -.09). Moderating effects of T1conscientiousness on association between T1fear of COVID-19 and T3 ecofriendly intention through attitude (-1SD = -.08, SE = .04, LLCI = -.09; ULCI = -.02; +1SD = -.07, SE = .03, LLCI = -.12; ULCI = -.02), subjective norm (-1SD = -.08, SE = .02, LLCI = -.02; ULCI = -.08; +1SD = -.05, SE = .01, LLCI = -.09; ULCI = -.02), and PBC (-1SD = -.07, SE = .01, LLCI = .01; ULCI = -.02; +1SD = -.08, SE = .03, LLCI = -.03; ULCI = -.02)

