Applying the Theory of Planned Behavior to Predict Low-Carbon Tourism Behavior:
A Modified Model from Taiwan

Nae-Wen Kuo, Department of Geography, National Taiwan Normal University, Taipei City, Taiwan

You-Yu Dai, Graduate Institute of Recreation, Tourism, and Hospitality Management, National Chiayi University, Chiayi City, Taiwan

ABSTRACT
To reduce carbon emissions resulted from tourism industry, low-carbon tourism is advocated and has become an important tourism policy in many countries. Previously, studies concerned about low-carbon tourism were focused on how to plan and design low-carbon tourism activities and itinerary products. However, little research was paid attention to the low-carbon tourism behavior of tourists and the factors that will influence their low-carbon tourism behavior were still unclear. Factors affecting tourists’ low-carbon tourism behavior are important and need to be explored. The main purpose of this research was to find the important factors that will affect tourists’ behavior, and a modified Theory of Planned Behavior (TPB) mode was used. In this study, an effective sample of 387 Taiwanese who visited the first “ECO Taiwan Expo” in Taiwan was collected. The results showed that the respondents were independently involved in low-carbon tourism, rather than influenced by the views of significant others or groups. In addition, past travel experiences could improve perceived behavioral control and behavioral intention toward “low-carbon tourism” behavior. Finally, a moderating effect of perceived behavioral control between behavioral intention and preferred behavior was found in this study.

Keywords: Carbon Reduction, Low-Carbon Tourism, Taiwan, Theory of Planned Behavior (TPB), Tourism

1. INTRODUCTION
To promote carbon reduction in the 21st century, low-carbon tourism is a rising tourism and recreation paradigm. The Theory of Planned Behavior (TPB) explains behavioral intentions and subsequent behavior of individuals as a result of three factors: personal attitudes, subjective norms, and perceived behavioral control. TPB is often used in tourism and hospitality research to predict and examine tourists’ intention for choosing destination (Lam & Hsu, 2006), decision-making (Quintal, Lee, & Soutar, 2010), tour planning (Sparks, 2007),

DOI: 10.4018/jthi.2012100103
and so on. However, a research gap exists in the model about explaining the low-carbon tourism orientation.

This research shall focus on the topic of “low-carbon tourism” behavior in Taiwan. “Low-carbon tourism” behavior in the context of this study refers to “Tourists may reduce carbon dioxide emission by their choice of destinations, favouring environmentally friendly means of transport, and choosing environmentally certified hotels, as well as eating in restaurants providing local and/or organic food. Tourists can also demand transportation in new, fuel-efficient aircraft, or to stay in environmentally friendly” (Simpson, Gössling, Scott, Hall, & Gladin, 2008). Globally, environmental concerns receive relatively little coverage in tourism industry due to consumer purchasing decisions and corporate environmental performance is largely unknown (Buckly, 2002). Locally, public reception toward environmental issues has also been lukewarm in Taiwan. In response, the government has introduced new initiatives to increase the environmental awareness of the public in an effort to transform Taiwan into a “low-carbon island.” The regency of this topic in the public mindset makes it a good point of focus for this study.

The purposes of this study are, first of all, to establish a reasonable model via TPB to predict which factors may impact “low-carbon tourism” toward behavior. Next, we want to make up gaps in theories by integrating possible constructs. The specific objectives of this study were to address the impact of attitude, subjective norms, and perceived behavioral control, past travel experiences on behavioral intention, to exam the impact of behavioral intention on preferred behavior, to investigate the moderating role of perceived behavioral control in the relationship between behavioral intention and preferred behavior, and to identify perceived barriers that tourists possibly perceive.

Consequently, this study choices the TPB framework to determine the persuasive efficacy on behavioral intention and preferred behavior toward low-carbon tourism. The relationship between past travel experiences, the three predictive factors of behavioral intention, and preferred behavior will be investigated. In addition, perceived behavioral control may affect as moderator between behavioral intention and preferred behavior. Thus, we proposed a modified model in this research to exam the moderator effect of perceived behavioral control.

2. LITERATURE REVIEW

2.1. The Theory of Planned Behavior

2.1.1. The Core Constructs

In social psychology, there is still conclusive in theories or models of how attitude could predict or influence the behavior. However, fortunately, the salt scholars in these studies (e.g., Armitage & Coned, 2000; Garcia & Mann, 2003) were thought that the TPB can provide researchers useful ideas. In this way, they can predict the possible influential behavior on environment when people engaged in tourism, and then provide prevention and advocacy opinions. The TPB was proposed by Ajzen (1985) to predict factors that may influence human beings’ behavior. There are five mainly constructs build up TPB, which are attitude, subjective norm, perceived behavioral control, behavioral intention, and behavior.

According to the TPB, the most proximal determinant of an individual’s behavior is his or her intention to engage in the behavior (Figure 1). In other words, behavioral intention is predicted by three main antecedents: attitude, subjective norm and perceived behavioral control (Ajzen, 1985, 1991; Ajzen & Fishbein, 2005; Abraham & Sheeran, 2003; Hagger & Chatzisarants, 2005). The three predictors weighted for their importance in relation to the behavior and population of interest. Attitudes refer to the overall positive or negative evaluation of performing the behavior. Attitude toward a behavior is the degree to which performance of the behavior is positively or negatively valued (Reber, Allen, & Reber, 2009). Ajzen (1988, 1991) and Ajzen and Fishbein (2005) all
Task Ontology-Based Human-Computer Interaction
www.igi-global.com/chapter/task-ontology-based-human-computer/22292?camid=4v1a