Travelers' pro-environmental behavior in a green lodging context: Converging value-belief-norm theory and the theory of planned behavior

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ABSTRACT

This research was designed to provide a comprehensive understanding of the formation of travelers' pro-environmental intentions in a green lodging context by merging value-belief-norm theory and the theory of planned behavior into one theoretical framework and by considering the moderating impact of non-green alternatives' attractiveness. Results of the structural analysis from a sample of 402 guests showed that our unified model includes a satisfactory level of prediction power for pro-environmental intention, which was superior to existing theories. Findings also supported the hypothesized relationships among study variables, identified the prominent role of awareness of consequences and normative process in generating intention, and verified the mediating impact of study variables. In addition, the invariance test identified the significant moderating impact of non-green alternatives' attractiveness. Specifically, the role of attitude, perceived behavioral control, and moral obligation in forming intention was found to be more important when customers felt the alternatives were less attractive.

1. Introduction

The term “Green” is attracting considerable attention within the lodging sector (Chen, Sloan, & Legrand, 2009; Kim & Han, 2010). The interchangeable use of terms—green, sustainable, eco-friendly, and environmentally responsible—is quite common when describing a green lodging firm (Pizam, 2009). There has been a growing awareness of the environmental impact of hotel operation and development among customers, operators, and investors (Chen et al., 2009; Jones, Hillier, & Comfort, 2014; Pryce, 2001). In particular, lodging customers in recent years have become increasingly concerned about the environmental impact of the hotel industry (Han, Hsu, Lee, & Sheu, 2011; Kim & Han, 2010). Greening a hotel is inevitable in order to meet hospitality customers’ increasing green needs and boost their positive intention...
and behavior toward the firm (Han, Hsu, et al., 2011; Jones et al., 2014).

Improving customers’ favorable intention or behavior toward a firm is a major goal of any hotel business (Han, 2013; Jani & Han, 2013, 2014; McCall & Voorhees, 2010; Tanford, Raab, & Kim, 2012). The importance of sustainable business management in attracting and retaining lodging guests has led many hotel operators to develop diverse sustainability plans, programs, and guidelines as vital constituents of their corporate strategies for enhancing their guests’ positive intentions or behavior (Chen et al., 2009; Pryce, 2001). In general, such pro-environmental intentions or behavior are viewed as activated by either pro-social or self-interest motives (Bamberg, Hunecke, & Bloebaum, 2007). Researchers who view individuals’ environmentally responsible intention and behavior as being stimulated by pro-social motives generally utilize the norm activation model (Schwartz, 1977) or the Value-Belief-Norm (VBN) theory (Stern, Dietz, Abel, Guagnano, & Kalof, 1999), while researchers who consider eco-friendly intention and behavior as self-interest motives mostly rely on rational-choice models such as the theory of reasoned action (Fishbein & Ajzen, 1975) or Theory of Planned Behavior (TPB) (Ajzen, 1991).

Considerable research has been conducted to explain the formation of customers’ pro-environmental intentions or behavior, applying these theories (e.g., Chen & Tung, 2014; De Groot & Steg, 2009; De Groot, Steg, & Dicke, 2007; Kim, Ham, Yang, & Choi, 2013; Kim, Nijte, & Hancer, 2013; Steg & De Groot, 2010; Zhang, Wang, & Zhou, 2013). In particular, the appropriateness of using norm activation model or VBN theory involving pro-social motives (e.g., De Groot & Steg, 2009; De Groot et al., 2007; Steg & De Groot, 2010, 2000; Stern et al., 1999; Schwartz, 1977; Zhang et al., 2013) and the adequacy of employing rational-choice models involving self-interest motives (e.g., Ajzen, 1991; Chen & Tung, 2014; Fishbein & Ajzen, 1975; Han, Hsu, & Sheu, 2010; Kim, Ham, et al., 2013; Kim, Nijte, et al., 2013; Kim & Han, 2010) in the context of environmentally responsible intention or behavior have been repeatedly evaluated by researchers in a variety of contexts. Each research stream has proven to be helpful in comprehending customers’ pro-environmental behavior, but little research has empirically compared the theories to identify the superiority of a particular model. In addition, the sufficiency of the theories in efforts to comprehensively understand pro-environmental intention or behavior has been often questioned (Bamberg et al., 2007; Bamberg & Moser, 2007; Harland, Staats, & Wilke, 1999; Onwezen, Antonides, & Bartels, 2013). Yet, research efforts to integrate both theoretical aspects into one comprehensive conceptual framework have rarely been made. In particular, none have combined them to predict guests’ pro-environmental intention and behavior in a hotel context.

Furthermore, within the competitive hospitality industry, there is a general consensus that alternatives’ attractiveness affects the formation of individuals’ intention or behavior (Colgate & Lang, 2001; Han, Back, & Barrett, 2009; Jones, Mothersbaugh, & Beatty, 2000; Lee, Ahn, & Kim, 2008; Sharma & Patterson, 2000). In other words, these researchers agree that customers’ decision-making process differs between when they feel that competing alternatives are attractive and when they feel that alternatives lack attractiveness. However, surprisingly, no research has yet considered the role of non-green alternatives’ attractiveness in generating pro-environmental intention or behavior, nor applied a pro-social or rational-choice model. To fill these research gaps, the following objectives were developed for the present study:

1) Develop a robust model that provides a more comprehensive and apparent understanding of hotel guests’ pro-environmental decision-making process by merging VBN theory and TPB into one theoretical framework;
2) Compare VBN theory, norm activation model, TPB, and our proposed model to verify the superiority of the proposed model;
3) Examine the moderating role of non-green alternatives’ attractiveness within the proposed theoretical framework;
4) Identify the relative importance among constructs within the proposed model in determining pro-environmental intention; and
5) Investigate the mediating role of study variables in hotel customers’ eco-friendly decision-making process.

The discussion of the present research is organized as follows. In the next section, an in-depth review of the related literature is presented. Then, research methods involving measurement development, data-collection process, sample profiles, and tools for data analysis are presented. Next, study results are reported. Lastly, a summary of the research, implications, limitations, and suggestions for future work are provided.

2. Literature review

2.1. Sustainability in hotels

A growing number of companies have publicly emphasized and demonstrated their environmental commitment to green development and management as a strategy in order to differentiate themselves from rival companies and increase their competitive advantages in the marketplace (Jones et al., 2014). Greening in particular is attracting increasing attention in the lodging industry (Chen et al., 2009; Kim & Han, 2010). Due to continuous environmental issues in the hotel industry, including environmental natural resource effects, this industry is working hard to decrease the level of any environmental harm and become more eco-friendly (Han et al., 2010; Jones et al., 2014). Green hotels are eco-friendly hotels that seek to minimize their harmful impact on the environment (Han et al., 2010). Unlike conventional hotels that cause enormous harm to the environment (e.g., excessive consumption of water, energy, and disposable products, vast amounts of emissions into the air, water, and soil, excessive use of natural resources), green hotels actively follow eco-friendly guidelines, dynamically practice environmental management to demonstrate their environmental commitment, and continuously develop and implement sustainability business strategies (Han, Hsu, et al., 2011; Kim & Han, 2010). Greening a hotel is believed to fulfill guests’ growing eco-friendly needs, enhance competitive advantages in the marketplace where the public’s sustainable development concerns are emerging, and result in significant cost savings by generating environmental benefits such as water and energy conservation, recycling, waste reduction, and product–life extension (Chan, 2005; Han et al., 2010; Manaktola & Jauhari, 2007). Recognizing these benefits, many hotel leaders are eager to develop innovative green-management guidelines and effective sustainable-development strategies (Chen et al., 2009; Ham & Han, 2013; Jones et al., 2014; Pryce, 2001).

2.2. Value-belief-norm theory

Schwartz’s (1977) norm activation framework was originally developed to investigate altruistic intention and behavior in a pro-social context. The norm activation model comprises three major concepts in explicating the formation of pro-social intention and behavior, namely awareness of consequences, ascription of responsibility, and personal norm (Schwartz, 1977). Though the theory was designed to predict altruistic intention and behavior,