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Diffusion of innovation: The case of ethical tourism behavior

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ABSTRACT

Ethical consumption is increasingly important for governments, consumers and researchers. Adopting new ethical tourist behavior requires consumer innovation. Using a sample of ordinary travelers, the research investigates behavioral innovativeness through constructing a hierarchy of Ethical Tourist Behavior (ETB). As ETB fits the Rasch Model, behavior might provide a link between the relatively static individual innovativeness and the dynamic Diffusion of Innovation Model. Universalism, age and gender influence behavioral ethical tourist innovativeness. Using Rasch Modeling and relating results to the levels of adoption and Diffusion of Innovations, companies gain insights about the success potential and uptake of future innovations.

1. Introduction

The level of consumption in the developed world is not sustainable (Sheth, Sethia, & Srinivas, 2011). Governments, NPOs, businesses, and consumers accept the need for sustainable development, but investigations reveal a large gap between intention and implementation (Dexhage and Murphy, 2010). The acceleration of sustainable production and consumption patterns is the overarching goal of a major 10-year United Nations initiative that includes six focus areas (UNEP, 2015) including Sustainable Tourism development (Zorba and UNEP Secretariat, 2014).

The tourism industry is an essential economic sector for developing and developed countries, with tourists' spending accounting for 9% of worldwide GDP in 2012 (Bonham and Mak, 2014). The industry's environmental impact is responsible for 14% of all greenhouse gases (McKercher and Prideaux, 2011). The high emission levels cause the sector's substantial impact on climate change (McKercher, Prideaux, Cheung, and Law, 2010).

Consumers have an increasing interest in ethical and/or sustainable consumption (Carrington, Neville, and Whitwell, 2010). Ethical issues are more salient and consumers start to act accordingly (Newholm and Shaw, 2007). Previous research finds considerable evidence that people act less ethically on holiday than in their daily lives (Dolnicar and Grün, 2009). Tourists undertake different behaviors and ethical holiday behaviors' adoption occurs only slowly (Kroesen, 2013). Activities, practices or ideas that consumers perceive as new are innovations (Goldsmith, d'Hauteville, and Flynn, 1998) and the new uptake of ethical holiday behavior is a sign of consumer innovativeness (Roehrich, 2004).

This research develops a hierarchy of Ethical Tourist Behavior (ETB) and, using the Rasch Model (Rasch, 1960/80), explores whether reported ETB can provide a link between individual behavioral innovativeness and Diffusion of Innovation (Rogers, 1995). By definition, Rasch's logistic Item Response Curve (Bond and Fox, 2007) and the Diffusion of Innovation's cumulative adoption function are identical. If behavior that people report fits the Rasch Model, the model might act as a link between relatively stable individual innovativeness and the dynamic Diffusion of Innovation Model. The Rasch Model is perfectly suitable for this type of investigation as its results reveal the structure of the behavioral variable; providing information about the relatively static behavioral summary variable, while suggesting information about future diffusion.

2. Background: innovativeness, adoption and diffusion of innovation

Companies' success relies on their ability to provide innovative products and services that satisfy customer needs (Hauser, Tellis, and Griffin, 2006). Understanding consumer innovativeness is one of innovation research's essential components (Steenkamp, Hofstede, and Wedel, 1999). Consumer innovativeness is "the consumption of newness" (Roehrich, 2004, p. 671). The conceptualization embraces any idea, practice, or object that appears new to the consumer (Lockett and Littler, 1997). Although most consumer innovativeness research refers to product adoptions (Im, Mason, and Houston, 2007), service adoption receives some attention, often relating to online adoption

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behavior, particularly financial service's online adoption (Lassar, Manolis, and Lassar, 2005).

Consumer innovativeness takes a view of innovativeness as the general desire to "seek out the new and different" (Hirschman, 1980, p. 285) or focuses on behavior by exploring the "degree to which an individual is relatively earlier in adopting an innovation than other members of his system" (Rogers and Shoemaker, 1971, p. 27).

A recent review categorizes studies on consumer innovativeness into three broad research approaches (Bartels and Reinders, 2011). Innate innovativeness refers to a general personality trait while domain-specific innovativeness (DSI) captures innovativeness within a product class, recognizing that involvement with product classes varies (Bartels and Reinders, 2011). Domain specific innovation (DSI) is a stronger predictor of behavioral innovativeness than innate innovativeness and is the most popular approach to measure the construct (Bartels and Reinders, 2011).

Consumer innovation research's most direct form refers to the concept's behavioral manifestation; "actualized innovativeness" (Im, Bayus, and Mason, 2003, p. 62), which adheres to Rogers and Shoemaker's (1971) classic definition; adopting relatively earlier than other members of society. The behavior can refer to really-new product acceptance (Jansson, 2011), but in many cases the term refers to a change in consumption patterns by purchasing different products or brands (Roehrich, 2004) that consumers perceive as new. Actualized innovativeness might manifest itself by simply switching from one brand to a different brand (Steenkamp et al., 1999; Wood and Swait, 2002), or by adopting a product that has become newly available in a geographic area (Goldsmith et al., 1998; Steenkamp et al., 1999).

Studies exploring innovativeness' behavioral manifestation frequently apply ownership surveys using cross-sectional samples (Im et al., 2003). Researchers ask consumers to indicate on an existing list which items they currently use/own. Product ownership level comparison across the population is the most reliable approach when investigating consumer innovativeness (Im et al., 2007) and studies employ this approach in various contexts (Im et al. (2003).

Innovativeness and Adoption of Innovation refer to a relatively static individual characteristic, while the Diffusion of Innovation Model takes a dynamic perspective and looks at an innovation's spread through a population. Diffusion of Innovation research, popular in marketing since the 1970s, explores how "an idea, practice, or object perceived as new" (Rogers, 1976, p. 292) spreads amongst consumers. Diffusion of Innovation studies also apply cross-sectional studies to explore the concept (Rogers, 1995).

Rogers (1976, 1995) uses an S-curve to model the cumulative adoption of an innovation over time, reflecting peoples' heterogeneous propensity to innovate — a shape that recent computer models confirm as appropriate (Meade and Islam, 2006). The cumulative diffusion curve's S-shape corresponds with a normal distribution curve representing the percentage of a population adopting during different time periods (Rogers, 1995) (see Fig. 1).

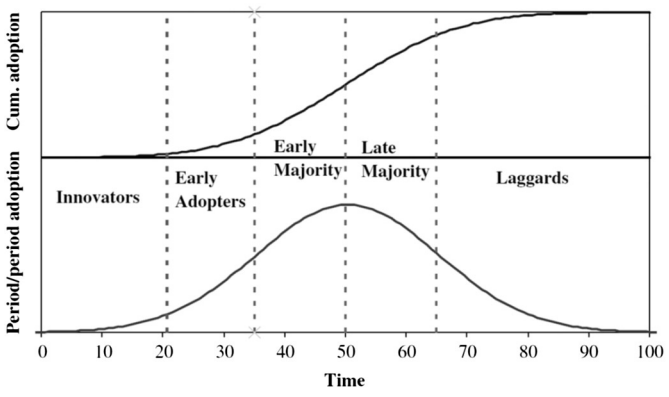

Fig. 1. Theoretical diffusion curves (Meade and Islam, 2006).

The time element and the relative view inherent in Adoption of Innovation lead to classifying adopters into categories: innovators (2.5%) are the first group in a population to adopt an innovation, early adopters (13.5%) being second, early and late majority (34% each) are the two big groups that follow, with Laggards (16%) being the last group in a population to adopt an innovation (Rogers, 1995). A number of characteristics influence the speed with which a population adopts an innovation; its relative advantage (in economic terms, but also including social prestige), the innovations' convenience and future satisfaction, its compatibility with (past) experiences and existing values (social norms strongly influencing the latter), an innovation's observability (relating to the adoption's social aspect), and its trialability. Increasing complexity relating to usability reduces adoption rates.

2.1 Ethical tourist behavior as actualized innovativeness

Governments and public bodies encourage consumers to adopt new additional ethical, sustainable behavior in all aspects of their lives (UNEP, 2015). Research shows that ethical behavior's adoption differs between life domains (Steg and Vlek, 2009) and organizations operating within those life domains encourage people to adopt ethical behaviors. Tourism is a context that encourages the adoption of new ethical behavior (Miller, Rathouse, Scarles, Holmes, and Tribe, 2010).

Tourist destinations and individual businesses frequently emphasize sustainable offerings in marketing communication (Peattie and Peattie, 2009; see also TUI Sustainable development (online) and Qualmark Enviro Awards (online) for industry examples). As public bodies and destinations continue to increase marketing efforts to emphasize their sustainable offerings, they introduce ethical tourism ideas and opportunities to consumers — new ideas that require tourists to take up ethical behaviors. The uptake of any form of behavior in a new context is consumer Adoption of Innovation (Roehrich, 2004). Explorations using cross-sectional samples provide information about the uptake of new ethical tourism offerings across a population: "actualized innovativeness" (Im et al., 2003, p. 62), relating to ethical travel behavior.

Consumption research uses the terms 'sustainable' and 'ethical' when referring to the same concept (McDonald, Oates, Alevizou, Young, and Hwang, 2012). In line with the World Tourism Organization who promotes a *Global Code of Ethics for Tourism* emphasizing the sector's impact on the environment, cultural heritage and societies (UNWTO, online) this research uses the term 'ethical' tourist behavior (ETB).

Ethical tourist behavior contains a wide range of activities. Some ethical tourist behaviors imply extending everyday behavior to a different context – for example, to not litter or to use available recycling facilities – while others are unique to a tourism context — choosing accommodation with an environmental accreditation. Similar to everyday ethical behavior (Wooliscroft, Ganglmair-Wooliscroft, and Noone, 2014) these ethical activities differ in their intensity and impact on a holiday's overall characteristics. Consumers adopt ethical behavior in a cumulative fashion, a characteristic that fits the Rasch Model.

3. Methodology

This study uses a commercial online sample containing 322 respondents, representative of the New Zealand population in terms of age (18 years and above) and gender, who have been on a major holiday (staying away from home for 5 nights or more) in the last three years. The Ethical Tourist Behavior (ETB) hierarchy forms the questionnaire's main part. The following section discusses the item selection process for ETB before exploring Rasch Model's characteristics and suitability for this type of analysis. The third part introduces additional scales and variables in the questionnaire.

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