Marketing Sustainability through Sport: Testing the Sport Participant Sustainability Behavior Model

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Until recently, no guidelines have been provided for sport organizations on how to engage their spectators to increase sustainable behaviors in general, nor how to evaluate campaigns in order determine how to increase such behaviors. Prior research has examined sustainable behavioral intentions of sport spectators (McCullough, 2013; McCullough & Cunningham, 2011) and various interventions to promote sustainable behaviors (Casper & Pfahl, 2012; Casper et al., 2014; Nathan, Ross, & Irwin, 2015). However, these prior studies did not examine the spectators’ responses to sustainability initiatives. Though these studies provide promising results that sport organizations can positively influence sustainable behaviors, they do not provide a uniform theoretical model. To fill this void, Trail (2015; 2016) proposed several strategies, models (Sport Fan Sustainability Behavior model – SFSB), and frameworks to help in this endeavor, but his proposals need to be tested much more in depth. To this end, the purpose of this study is to propose and test the Sport Participant Sustainability Behavior Model, modifying the SFSB model to fit participants in a 10-mile run event instead.

Conceptual Framework

We formulated the Sport Participant Sustainability Behavior Model based on self-determination theory (Deci & Ryan, 2008), values theory (Rokeach, 1973), identity theory (Stryker & Burke, 2000), constraint theory (Crawford & Godbey, 1987; Kim & Trail, 2011), attitude theory (Eagly & Chaiken, 1993), and the theory of planned behavior (Azjen & Madden, 1986). Specifically, we are proposing that needs and values predict attitudes about a sustainability campaign, along with internal constraints and points of attachment. In turn, attitudes about the campaign predict intentions to act in a sustainably, along with external constraints and past sustainable behaviors.

According to Deci and Ryan’s (2008) self-determination theory and Rokeach’s (1973) values theory, needs influence values and attitudes. Stryker and Burke (2000), in their identity theory, suggested that values lead to attitudes and Lee and Trail (2011) showed that values influenced beliefs and attitudes in sport fans. However, Rokeach and Ball-Rokeach (1989) suggested needs impacted attitudes, mediated by values. Trail (2016) reported support for the needs to values relationship, but also a mediated relationship to intentions. Thus, we propose Hypothesis 1: Needs will influence values; Hypothesis 2: The relationship between needs and sustainability attitudes will be mediated by values; and Hypothesis 3: Values will influence sustainability attitudes.

Points of attachment refer to the different role identities (identity theory; Stryker & Burke, 2000) that an individual could have referent to sport. Trail and James (2012, 2015) used identity theory to suggest that points of attachment would influence attitudes toward the product. Thus, we propose Hypothesis 4: Points of attachment will influence attitude toward a sustainability campaign.

Trail and James (2015) defined constraints as “factors (or reasons) that prevent or prohibit an individual from participating and enjoying some activity” (p. 238). Kim and Trail (2010; 2011) showed that constraints influence behavioral intentions and McCullough and Cunningham (2011) found that subjective norms (similar to internal constraints) were correlated with attitudes toward recycling. Extrapolating these results, we propose Hypothesis 5: Internal constraints will negatively influence attitudes toward a sustainability campaign.

Attitudes are psychological tendencies that are “expressed by evaluating a particular entity with some degree of favor or disfavor” (Eagly & Chaiken, 1993, p. 1). Azjen and Madden (1986), relative to the theory of planned behavior, noted that attitudes lead to intentions. Within sport, a variety of studies have shown that attitudes lead to intentions (Biscaia, Correia, Rosado, Ross, & Maroco, 2013; Noni, Biscaia, Gray, & Stotlar, 2016; Song & Park, 2015). In
sustainability research, Belz and Peattie’s (2012) sustainability framework indicates that attitudes and intentions are related. Thus, we propose Hypothesis 6: Attitudes toward the sustainability campaign will lead to behavioral intentions specific to sustainability.

However, Trail and James (2012, 2015) noted that attitudes are not the sole predictors of intentions; the relationship is moderated by external constraints. Similarly, Belz and Peattie (2012) within their model of sustainability predicted that social and structural contexts influence consumer factors and purchase factors (e.g., behavioral intentions). Therefore, we propose Hypothesis 7: External constraints will negatively influence sustainable behavioral intentions.

Past behaviors typically predict future behaviors and behavioral intentions as per Azjen (1991; TPB). Within sport, Shapiro, Ridinger, and Trail (2013) found that past behavior predicted behavioral intentions well. Within the sustainability context, Belz and Peattie (2012) concurred. Furthermore, McCullough and Cunningham (2011) found that past recycling behaviors predicted future recycling intentions. Thus, we propose Hypothesis 8: Past sustainable behaviors will predict sustainable behavior intentions.

Specific to our research here, we focused on sustainable behavior intentions, specifically, buying carbon offsets and the intended recycling and waste diversion behavior during the Run. In sum, we are proposing a model of Sport Participation Sustainability Behavior in which needs and values predict attitudes about the sustainability campaign, along with constraints and points of attachment. In turn, attitudes about the campaign predict intentions to act in a sustainable manner, but intentions are also influenced by external constraints and past sustainable behaviors.

Methods
A survey link was emailed to over 17,000 people in the Run’s database and was posted on the official Facebook page for the Run. In total, 746 people responded to the survey during the week that the survey was open and complete data were collected from 531 participants. Of the completed surveys 112 people responded as female (21.1%) and 419 as male (78.9%).

Results
The model fit the data well ($\chi^2/df = 3.249; \text{RMSEA} = .065; \text{CI} .063-.067$). Needs, as a whole, explained 31.1% of the variance in Values. Needs, Values, Points of Attachment, and Internal Constraints explained a total of 52.1% of the variance in Attitudes toward the Campaign. Attitudes, External Constraints, Past Behavior and all of the indirect effects of the other variables combined, explained 74.2% of the variance in Sustainable Behavior Intentions.

Discussion
The SPSB model demonstrated that needs and values predict attitudes about the sustainability campaign, along with internal constraints and points of attachment. In turn, attitudes about the campaign predicted intentions to act in a sustainable manner, but intentions were also impacted by external constraints and past sustainable behaviors. All hypotheses were supported in the study. The fit of the model in this study advances the research into understanding sustainable attitudes and behaviors of sport organization’s environmental sustainability campaigns. That is, the SPSB model explains more variance than the general theoretical models used in prior research (Casper et al., 2014; McCullough & Cunningham, 2011). The nuanced SPSB model is supported by prior research suggesting that sport sustainability behaviors are unlike previously research behaviors (e.g., workplace, household, everyday sustainable behaviors; McCullough, 2013; McCullough & Cunningham, 2011). Further discussion during the presentation will include implications and applications of this research for academics and practitioners.