Using Experiments in Sport Consumer Behavior Research

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Marketing - Consumer Behavior (Professional Sport)

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Introduction
Over the last few decades, scholars in sport marketing and consumer behavior have mainly limited themselves to survey designs in understanding consumption behavior and decision processes of the sport consumer. Although survey methods have been of tremendous value to describe specific characteristics of consumers, (re)define research constructs, and explore the relationships between key constructs in sport consumer behavior, such approaches often lack the rigorous tactics of (quasi-) experimental research designs that seek to establish causality among research variables. After many decades of exploring sport phenomena and relevant theories, it is now time to shift our focus to causal and mechanistic explanation of sport consumption behavior through experimental approaches. This symposium intends to provide sport consumer behavior scholars with an appreciation of the goals and methods of experimental research. Specific discussion items include the following.

Key Issues

Theory Testing
Experimental research has a unique advantage in theory testing. A good theory is argued not only to identify the most succinct set of elements that construe observed phenomena (Gioia & Pitre, 1990), but also to provide a rational justification for their interrelationships (e.g., Gay & Weaver, 2011). In other words, theories are causal explanations that are grounded in logic (Calder, Phillips & Tybout, 1981). In order to cultivate, theories require rigorous testing that is primarily aimed at falsifying, rather than confirming, the very causal claims of the theory (e.g., Calder & Tybout, 1987). This is where the role of experimental research in developing theories becomes evident, especially in the field of sport consumer behavior. Compared to other research designs, experiments are the most effective to identify causal mechanisms underlying human behaviors (Calder et al., 1981). Controlling for other potential explanations and maintaining the temporal order between the phenomenal causes and effects, experiments provide the necessary empirical data against which theoretical claims are contrasted. Regardless of one’s epistemological position, the utility that experimental research offers in terms of testing and establishing causality is indispensable for any researcher who seeks to identify the causal mechanisms that lie behind sport consumer behavior.

Experimental research has two unique characteristics related to hypothesis development. First, as mentioned earlier, causality is established between an independent variable and a dependent variable. In a cross-sectional survey design, it is difficult to make causal inferences among variables of interest. Second, researchers may hypothesize an interaction effect between independent variables. In experimental research, there may be multiple independent variables that interact with each other and stimulate an effect on a dependent variable. Therefore, hypothesis development in experimental designs allows researchers to advance theories by explicating when and how certain variables work and do not work.

Methodological Issues
When designing experimental studies, researchers should answer the following questions to improve the quality and the rigor of the studies. These questions are critical aspects for theory advancement, which is inherently related to
Internal validity and research design. First, is the intended manipulation effective? Empirically testing research hypotheses (cause-and-effect relationships) begins with effective manipulation of independent variables. Pilot testing and manipulation checks (Ellsworth & Gonzalez, 2007; Koschat-Fischer & Schandelmeier, 2014) should be considered in the design. These procedural steps can reduce the risks of using ineffective manipulations in the main experiment (Koschat-Fischer & Schandelmeier, 2014). Second, is the research design actually testing the said theory? As mentioned earlier, one primary aim of experimental approach is empirical validations of incorporated theories. When designing and conducting experimental studies, researchers should pay close attention to testing and validating proposed theories. Lastly, are there any alternative explanations to the findings? When interpreting the result, researchers need to understand and effectively address alternative explanations in the design and theoretical relevance.

In addition, when conducting experimental research, the following methodological issues must be addressed to enhance validity: (1) statistical generalizability, (2) replication, and (3) realism (Lynch, 1982). First, experiments often receive criticism for using “convenience samples” (e.g., college students). For instance, Ferber (1977) has noted that researchers generally recruit students to participate in experiments in which those participants may not be potential customers of the product being investigated. While such participants are appropriate for exploratory or illustrative conditions, experimenters should nevertheless carefully interpret and generalize results. Second, experiments should be run multiple times to replicate the same result in various contexts, time frames, and populations for the purpose of cross-validation (Eisend, Franke, & Leigh, 2016). Third, researchers have highlighted the importance of practicality of experimental settings, stimuli, and measurements (Cook & Campbell, 1979). If experimenters employ unrealistic settings, the results often suffer from a lack of external (ecological) validity.

The use of crowd-sourcing platforms (e.g., MTurk) is becoming increasingly popular among experimental researchers in the social sciences. As Mason and Suri (2012) addressed, the major benefits of using crowd-sourcing platforms for running experiments include (1) ease of subject access, (2) subject pool diversity, and (3) low cost. The biggest disadvantage, however, could be that the population may not be representative of targeted geographic areas or market segments. For example, according to a technical report developed by Ipeirotis (2014), approximately 50% of the online crowd-sources come from the United States and 40% come from India. To ensure the quality and reliability of experimental data, it is necessary to implement certain screening steps. By doing so, crowd-sourcing platforms could offer acceptable data quality in comparison to the psychometric standards of laboratory experiments (Buhrmester et al., 2011).

Considerations for Analysis
Researchers need to be mindful of certain analytic issues in experimental research. First, researchers may have to analyze data from nonrandomized groups (i.e., quasi-experimental design) where participants are assigned based on certain characteristics of the groups. Among the possible analytical techniques, propensity score analyses allow researchers to control selection biases in such designs (Thoemmes & Kim, 2011). Second, researchers should recognize the difference between the statistical significance of a result and the magnitude of the effect. It is strongly recommended to report not only the significance of the results (i.e., p values), but also the effect sizes as well (e.g., Cohen’s d; Wilkinson, 1999). Lastly, researchers should be cautious of the commonly-used post-hoc techniques, such as the Bonferroni correction and Tukey’s test, since their results are not localized to the specific comparisons of interest (Glickman, Rao, & Schultz, 2014). Accordingly, researchers may need to consider planned comparisons with alpha-adjustment techniques that are better suited for theory driven research (e.g., Benjamini-Hochberg procedure; Benjamini & Hochberg, 1995).

Conclusion
The proposed workshop is intended to broaden our understanding of less-utilized research methods in the sport consumer research – experimental approaches. While the experimental method has recently received some traction in sport management journals, we believe it is essential that we further the dialogue to discuss key issues, advantages, and challenges within the research method. We will discuss key topics and trends related to the experimental design and will share how the method can be utilized in sport consumer research. As a growing academic field, we believe utilizing experimental methods will make substantial theoretical contributions to the field of sport consumer research. Ultimately, collective efforts of understanding and conducting theory based experimental research will not
only enhance methodological rigor in sport consumer research, but also create new research agendas to further expand our understanding of sport consumer behavior.