A Meta-Analytic Review of the Factors Affecting Sport Consumer Consumption Behaviors

Yukyoun Kim, Florida State University
Hyun-Woo Lee, Florida State University
Marshall Magnusen, Baylor University

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Sport marketing research is largely concerned with examining the extent to which numerous factors (e.g., motives, identification levels, and relationship quality) affect sport consumer consumption behaviors, such as word-of-mouth (WOM), attendance, media consumption, and merchandise consumption (Madrigal, 1995; Trail & James, 2001; Wann, 1995). The National Football League (NFL), for example, has benefited greatly from media consumption. In 2011, nine of the 10 highest-rated television broadcasts were NFL games (Nielsen 2011). Of particular note is Super Bowl XLV; it was the highest rated television broadcast in 2011 with an average of 111 million viewers. Given the popularity of the NFL, it should come as no surprise that from 2002-2011 the Super Bowl (alone) generated $1.72 billion of network advertising for the NFL (Kantar Media Intelligence, 2012). Thus, as the economic élan vital of most sport organizations, thoroughly understanding the determinants of various consumption behaviors is of the utmost importance to both sport practitioners and researchers. Yet, despite the important contributions of previous research on sport consumption behaviors, insufficient academic attention has been given to systematically organizing and then quantitatively synthesizing the vast body of empirical knowledge in the sport marketing and sponsorship literatures. To help fill this void, we conduct a meta-analytic review of the extant body of sport consumer behavior research. More precisely, the purpose of the proposed meta-analysis is to accomplish three key research objectives: (1) systematically summarize, update, and expand the dominant theoretical explanations of the factors impacting sport consumer consumption behaviors; (2) provide an aggregated empirical analysis of the dominant theoretical foundations used to explain key factors affecting sport consumer consumption behaviors; and (3) attempt to resolve academic disagreements found in the sport consumer behaviors literature, as well as identify previous research limitations and beneficial opportunities for future sport-based consumption research.

Motive theory, identification theory, relationship theory, and external factors related accounts emerged from a review of the relevant literatures as primary accounts of the sport consumer decision making process. Accordingly, we meta-analytically examined these theoretical explanations through the following procedures: (1) computerized databases search using the search terms in various combinations; (2) citation-index search using Social Sciences Citation Index; (3) unpublished dissertations and theses search through ProQuest Dissertation and Theses; (4) search of conference papers via the listings of conference proceedings; (5) personal contact with well-established sport management researchers to obtain their working papers and forthcoming articles; and (6) ancestry methods, reviewing reference lists of the retrieved studies for additional studies. The search produced a total of 237 studies covering the period from January 1980 up to September 2012. Furthermore, the following criteria were used to determine the appropriateness of a study for inclusion in the meta-analysis.

First, the studies had to quantify one or more associations between antecedents and outcomes in the proposed theories. Second, we selected only studies that were written in English. Third, we systematically screened for overt and covert duplicate studies to remove bias due to duplicate study effects. Next, we included both published and unpublished studies to reduce potential effects of publication bias. Finally, the meta-analysis included studies that contained sufficient statistical data to calculate an estimate of effect size. Two authors and one independent coder who were not familiar with the study completed the coding. Initial intercoder agreement among three coders was over 91%. The coders examined and discussed discrepancies until reaching consensus. For studies that reported multiple effect size estimates of the same relationship, we used the average to avoid statistical interdependence. Altogether, the present meta-analysis integrated 178 effect sizes based on 44,133 participants. The effect size metric chosen for the analysis was the correlation coefficient r. Before these correlations were synthesized, we used Hunter and Schmidt’s (2004) methods to correct the correlations (r) from each study for attenuation due to measurement error and artificial dichotomization at the level of individual effect size estimate. We used a random-effects model to test the overall effect sizes across the selected studies. We also examined the homogeneity of an effect with Q statistic. Lastly, to estimate the publication bias (file drawer problem), we used classic fail-safe N (Rosenthal, 1979),
and funnel plot techniques. Discussed next are the results for sport consumer attendance behaviors, which is one of several important sport consumption behaviors explored in the meta-analysis.

Regarding motive theory, the meta-analytic results support the positive influence of Vicarious Achievement (\(r = .63, Z = 4.75\)), Escape (\(r = .49, Z = 9.90\)), Aesthetics (\(r = .41, Z = 13.03\)), Social (\(r = .37, Z = 3.75\)), Nostalgia (\(r = .61, Z = 4.04\)), Drama (\(r = .23, Z = 6.27\)), Family (\(r = .333, Z = 4.85\)), and Knowledge (\(r = .661, Z = 7.93\)) on Attendance. However, Physical Attractiveness (\(r = .07, Z = .80\)) did not have significant impact on Attendance. For identification theory, Identification (\(r = .54, Z = 9.35\)) and Social Norm (\(r = .331, Z = 4.85\)) significantly impacted Attendance. With regard to relationship theory, the results provide evidence for a positive relationship between Attendance and the factors of Trust (\(r = .53, Z = 5.17\)), Commitment (\(r = .76, Z = 23.27\)), and Reciprocity (\(r = .41, Z = 9.02\)). Intimacy (\(r = .42, Z = 1.39\)), however, did not have a significant impact on Attendance. Finally, several external factors of the sport consumer decision making process, including Access (\(r = .23, Z = 2.16\)), Atmosphere (\(r = .45, Z = 4.59\)), Cost (\(r = .24, Z = 2.93\)), Facility (\(r = .22, Z = 4.76\)), Opponent (\(r = .30, Z = 7.66\)), Staff (\(r = .22, Z = 3.77\)), Satisfaction (\(r = .39, Z = 6.73\)), and Team performance (\(r = .34, Z = 5.00\)) were significantly linked to Attendance. By comparison, Promotion (\(r = .05, Z = 1.86\)) had minimal impact on Attendance. Also note, in addition to the pair-wise analyses, meta-analytic structural equation modeling (MASEM) was conducted so as to examine the hypothesized research model. These results will be presented in great detail.

One main contribution of this study lies in providing a systematic and empirical review and synthesis of the accumulated body of knowledge on sport consumer consumption behaviors. Additionally, the meta-analysis reported in this study provides a quantitative integration of the empirical findings about various theoretical accounts of the sport consumption decision making process. In other words, we examine the relationships between the measurable variables linked to the main sport consumption decision-making process theories and then offer quantitative evidence for the generalizability of these theories. Finally, our results provide concrete information for sport marketers who strive to identify the main factors responsible for impacting various sport consumption behaviors. Despite the benefits of this study to research and practice, several limitations are common to meta-analytic reviews. As such, they also are present in our research. Notably, our meta-analysis could be conducted only for the relationships in which a sufficient number of empirical observations were available for analysis. Value and service quality, for example, have been widely discussed in the sport marketing literature. Yet, for the purposes of conducting a meta-analysis, insufficient empirical data is available at this time. Therefore, it would be rewarding to empirically investigate concepts such as these so that they can be included in future meta-analytic reviews.