Sport Video Game: The Effect of Virtual Sport Experience on Attitude Formation (SAT)

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Marketing
Saturday, June 6, 2015
20-minute oral presentation (including questions)
(Chaudière)

Abstract 2015-227
1:35 PM

As computer and video games have exploded in popularity, sport video games (SVG) modeling real life sports have been one of the most popular entertainment genres in the US. Despite many potential benefits of sport video games as a marketing communication tool, little empirical research, to date, has been conducted on how the virtual sport experience influences the formation of sport brand knowledge and attitudes. Accordingly, the purpose of this study is to test whether sport experience in SVG fosters brand knowledge, attitudes, and purchase intention. The study focused on a selected sport team as a brand. The effects of direct, indirect, and virtual sport experiences on brand knowledge, attitudes, and purchase intentions were compared with the following research questions in mind:

RQ1: Does sport video gaming affect sport team brand attitudes?
RQ2: Are attitudes formed from virtual sport experience (playing SVG) as strong as those formed from direct sport experiences (watching on TV) or indirect experiences (Watching ads)?

Sport fans learn about sport teams through different forms of experience: indirect (e.g., advertising), direct (e.g., watching on TV), and virtual (e.g., sport video gaming) experiences. More recently, a new form of experience in the mediated environment, known as a virtual experience, has emerged in the communication and consumer behavior literature. A virtual experience is referred to as the psychological and emotional state that individuals experience while interacting with products or branded images in a multimedia/gaming environment (Li, Daugherty, & Biocca, 2001).

Advanced media technology offers users control over the inspection of a branded product/service to maximize informational input. Virtual experiences generated from interaction with branded products in a mediated environment are perceived as credible and as memorable as direct experiences generated from actual consumption (Li, Daugherty, & Biocca, 2002). Additionally, similar to indirect experiences, virtual experiences are generated from media which reach a large audience (Edwards & Gangadharbatla, 2001; Heeter, 2000). As such, virtual experiences are likely to generate rich experiences equivalent to direct experiences, with the advantages of indirect experiences, such as information presentation (Li et al., 2003).

Given the development of new audio-visual technologies and the increase in licensing arrangements, sport video games have the ability to serve as a more powerful medium for communicating the details and experiences of sport brands than traditional media (e.g., television and radio). Klein (1998) suggested that the value of a virtual experience is to enable audiences to evaluate experience attributes of products prior to purchase, which can only be verified by a direct experience (e.g., actual consumption, product trial). In playing sport video games, users are able to simulate the sport consumption experience and learn how well it can meet the expectation of the sport experience (e.g., entertainment) (e.g., Daugherty, Li, & Biocca, 2008; Kim, Walsh, & Ross, 2008). In a sense, sport experience in video game contexts is more than the passive reception of external stimulation or mental interpretation of information about sport team brands. In particular, because the interactive and vivid nature of sport video gaming shares the properties of direct experiences, information about sport brands obtained from virtual sport experiences could be as vivid, concrete, and trustworthy for consumers as that obtained from direct experiences (e.g., Daugherty et al., 2008).
Affective, cognitive, and conative responses to a sport team brand in SVG are examined in an experiment containing three groups representing three experience types: indirect, virtual, and direct experience. A total of 120 undergraduate students enrolled at a mid-size northeastern university in the US participated in a laboratory experiment. After completing a short survey, each participant was randomly assigned to one of the three experimental conditions.

In the virtual experience group, each participant was instructed to play a NBA-themed video game for 30 minutes. He/she played a NBA video game with a pre-selected team on a 40-inch flat screen TV with a Sony Play Station system. Participants in the direct and the indirect experience group were asked to watch a prerecorded 30 minute NBA event or three NBA commercials embedded in a 30 minute long soap drama on a 40-inch flat screen TV, respectively. Following exposure to a NBA team brand, participants discussed campus life with a lab supervisor for 3 minutes to avoid a “priming” effect on the study, and then completed a post survey. All of the scales were adopted from previous research (Kim & Ross, 2010), with some modifications. Analysis of Covariance (ANCOVA) was utilized to test mean differences of the dependent variables (brand knowledge, attitude, and purchase intention respectively) across the experimental groups, controlling for covariates (prior brand knowledge, pre-formatted brand attitude). The information from the completed surveys was entered into a computer database and analyzed using SPSS 19.0.

The results of the ANCOVA test indicated that participants with virtual or direct sport experience showed higher level of sport team knowledge \[F(2, 116) = 14.53, p < .001\], more favorable brand attitudes \[F(2, 116) = 16.33, p < .001\], and higher level of purchase intention \[F(2,116) = 4.221, p < .01 \] than those with indirect experience. To confirm significant differences across conditions, post-hoc comparisons using the Bonferroni test were conducted. The adjusted mean scores of dependent variables for both the direct experience (M = 5.01, SE = .13 for brand knowledge; M = 5.21, SE = .12 for brand attitude) and the virtual experience (M = 4.81, SE = .23 for brand knowledge; M = 5.17, SE = .28 for brand attitude) groups were significantly different from the indirect experience group (M = 3.24, SE = .21 for brand knowledge; M = 3.54, SE = .11 for brand attitude). However, participants in the direct experience group (M = 4.01, SE = .13) indicated a higher level of purchase intention than that of the virtual experience group (M = 3.21, SE = .23).

Not only did the findings in the current study provide support for previous research results (Daugherty et al., 2008), but also for the proposition that virtual sport experiences generated from SVG play enhance brand attitude and knowledge. The current study also provides important implications for consumer learning and practical implications to practitioners. The findings of this study provide sport marketers with support for using sport video games as a marketing communication tool to market sports teams, by suggesting that brand attitudes may be improved by repetitive exposure to a sport team brand featured in sport video games.