

Dimensions of motivation associated with playing sport video games

Beth Cianfrone, Georgia State University

James Zhang, University of Florida

**Marketing
Session 10**

**Friday, May 30, 2008
8:00 AM - 8:25 AM**

**Presentation (25-minute)
Abstract 336**

Video gaming business is a \$7 billion industry in the United States [Entertainment Software Association (ESA), 2006]. Five of the top 10 selling video games in 2005 were sports games, including games representing the NFL (Madden NFL 06), NCAA (NCAA Football 06), MLB (MVP Baseball 2005), and NBA (NBA Live 06) (ESA, 2006). With an increasing number of 18-34 year old sport fans turning to sport video games (SVGs) as a form of entertainment, the motivation to play the games has become a new area of research. In an effort to maximize the sales of SVGs to the target market, it is necessary for gaming companies, associated sport leagues/organizations, and game sponsors to understand why people play SVGs. Sport motivation is concerned with identifying specific motives that cause, channel, and sustain consumption of sport. While motivations for sport spectatorship and sport participation have primarily been the focus of previous studies, motives to consume sport related media outlets such as television (Gantz, 1981; Gantz & Wenner, 1991; 1995), websites (Hur, Ko, & Valacich, 2007), and SVGs (Kim & Ross, 2006) have been studied to a lesser extent. Nonetheless, the market environment for SVGs has become increasingly competitive and it would be very beneficial for companies, organizations, and marketers to understand consumer motivations for SVGs in order to formulate effective marketing strategies.

A number of studies have recently been conducted to examine the dimensions of consumer motivation associated with playing video games and SVGs. For example, by following the Uses and Gratifications Theory, Sherry, Lucas, Greenberg, and Lachlan (in press) studied video game motives and identified six motivation factors for playing video games: Competition, Challenge, Social Interaction, Diversion, Fantasy, and Arousal. Two factors (Arousal and Challenge) were found to be strong predictors for game adoption and the frequency of play. Kim and Ross (2006) also adopted the Uses and Gratifications Theory to study SVG motivations. Through rigorous measurement procedures that include a review of literature, content validity, and confirmatory factor analysis, they developed the Sport Video Game Motivation Scale (SVGMS) that contains 20 items under seven factors (Fantasy, Social Interaction, Sport Knowledge Application, Enjoyment, Diversion, and Identification with Sport).

Previous studies on SVG motives have primarily followed the Uses and Gratification theoretical framework, without referencing motivational theories related to sport spectatorship and sport participation. Considering that SVGs are different than other forms of media in terms of fantasy and socialization, the Uses and Gratification framework alone may not be adequate for assessing motives of consuming SVGs. Playing a SVG is an interactive form of participation, which is different from passively watching sports on television. It is also different from actually competing in a sport as an athlete or participant. Therefore, some combination of motives from media, spectator, and participant literature may better explain why gamers consume SVGs. Furthermore, previous studies have failed to examine the predictive validity of identified motivational factors with respect to the consumption level of SVGs. Limitations in previous studies call for a more systematic investigation into the dimensions of motivation for SVG.

The purpose of study was to modify, revise, and improve the SVGMS. Initial modification and revision were conducted through a review of literature, adoption of pertinent theories, a test of content validity, and a pilot study. To ensure that each factor is measured with at least three items (Hair et al., 2002), three questions were added to the modified SVGMS. Three motive factors were added to the scale, two (Challenge and Arousal) from Sherry et al. (in press) and one from Cianfrone (Team Identification; 2006). A panel of six experts in business marketing and sport marketing was asked to improve, revise, and confirm the wording and readability of the SVGMS. A pilot study was conducted on sport video gamers ($n = 91$) to test the readability of the scale. The modified SVGMS with 34 item under 10 factors was administered to sport video gamers ($N = 232$) to play two popular SVGs (NCAA Football 2007 and the Madden NFL 07).

A confirmatory factor analysis (CFA) with maximum likelihood estimate was conducted for the modified SVGMS. Findings from the CFA revealed the data fit the model reasonably well ($\chi^2/df = 2.058$; RMSEA = .064; CFI = .909). Two motivation factors were eliminated from the model and one item was eliminated after examining the correlation matrix and modification indices. A CFA was conducted with the remaining eight factors, which revealed a better overall model fit than the 10 factor model ($\chi^2/df = 1.843$; RMSEA = .058; CFI = .943; Hu & Bentler, 1999). The reliability of the factors was examined by calculating alpha coefficients and AVE values.

Cronbach's alpha coefficients for the eight factors were satisfactory ($> .80$; Nunnally & Bernstein, 1994). AVE values were all above the .50 threshold, ranging from .52 to .71 (Hair et al., 2002). All factor loadings exceeded .707 except two (Sport

2008 North American Society for Sport Management Conference (NASSM 2008)

Knowledge Item 1, $f = .60$; Sport Interest Item 1, $f = .70$) indicating more specific variance associated with that item than common variance. Overall, the subscales showed good construct reliability. Discriminant validity was established when the estimated correlations between the factors were not excessively high (Kline, 1998). Regression analyses revealed that all eight of the motives were significantly predicting SVG consumption, with Entertainment, Sport Knowledge Application, and Team Identification being the most influential constructs representing motives. Overall, the modified SVGMS showed good validity and reliability, providing good measurement evidence for the scale to be adopted for future investigations of motivations associated with sport video gamers.

To a great extent, the revised SVGMS confirmed the previous research findings, especially those found by Kim and Ross (2006). Sport and video game researchers may adopt the revised scale in their investigations; whereas, practitioners can focus their marketing efforts of SVGs by promoting the entertainment value of the games to sport fans. Fans of specific sport teams are highly likely (approximately 70%) to play the SVG as their favorite team and are identified with their team. It would be beneficial to include special team features in the SVGs, such as NCAA Football's option to customize the introduction screen to show the gamer's favorite school's logos and colors, and play the favorite school's fight song. Considering that gamers enjoy playing the SVGs to apply their sport knowledge, SVGs that allow gamers more opportunities to control or apply sport related knowledge, such as increasing strategy-style gaming, might lead to more game consumption.